

***In the Senate of the United States,***

*December 13, 2007.*

*Resolved*, That the Senate agrees to the amendments of the House of Representatives to the amendments of the Senate to the bill (H.R. 6) entitled “An Act to reduce our Nation’s dependency on foreign oil by investing in clean, renewable, and alternative energy resources, promoting new emerging energy technologies, developing greater efficiency, and creating a Strategic Energy Efficiency and Renewables Reserve to invest in alternative energy, and for other purposes.”, with the following

**SENATE AMENDMENT TO HOUSE AMENDMENTS TO  
SENATE AMENDMENTS:**

In lieu of the matter proposed to be inserted by the House amendment to the text of the bill, insert:

**1    *SECTION 1. SHORT TITLE; TABLE OF CONTENTS.***

2            *(a) SHORT TITLE.—This Act may be cited as the “En-*  
3    *ergy Independence and Security Act of 2007”.*

- 1       (b) *TABLE OF CONTENTS.—The table of contents of this*  
 2 *Act is as follows:*

*Sec. 1. Short title; table of contents.*  
*Sec. 2. Definitions.*  
*Sec. 3. Relationship to other law.*

***TITLE I—ENERGY SECURITY THROUGH IMPROVED VEHICLE FUEL ECONOMY***

*Subtitle A—Increased Corporate Average Fuel Economy Standards*

*Sec. 101. Short title.*  
*Sec. 102. Average fuel economy standards for automobiles and certain other vehicles.*  
*Sec. 103. Definitions.*  
*Sec. 104. Credit trading program.*  
*Sec. 105. Consumer information.*  
*Sec. 106. Continued applicability of existing standards.*  
*Sec. 107. National Academy of Sciences studies.*  
*Sec. 108. National Academy of Sciences study of medium-duty and heavy-duty truck fuel economy.*  
*Sec. 109. Extension of flexible fuel vehicle credit program.*  
*Sec. 110. Periodic review of accuracy of fuel economy labeling procedures.*  
*Sec. 111. Consumer tire information.*  
*Sec. 112. Use of civil penalties for research and development.*  
*Sec. 113. Exemption from separate calculation requirement.*

*Subtitle B—Improved Vehicle Technology*

*Sec. 131. Transportation electrification.*  
*Sec. 132. Domestic manufacturing conversion grant program.*  
*Sec. 133. Inclusion of electric drive in Energy Policy Act of 1992.*  
*Sec. 134. Loan guarantees for fuel-efficient automobile parts manufacturers.*  
*Sec. 135. Advanced battery loan guarantee program.*  
*Sec. 136. Advanced technology vehicles manufacturing incentive program.*

*Subtitle C—Federal Vehicle Fleets*

*Sec. 141. Federal vehicle fleets.*  
*Sec. 142. Federal fleet conservation requirements.*

***TITLE II—ENERGY SECURITY THROUGH INCREASED PRODUCTION OF BIOFUELS***

*Subtitle A—Renewable Fuel Standard*

*Sec. 201. Definitions.*  
*Sec. 202. Renewable fuel standard.*  
*Sec. 203. Study of impact of Renewable Fuel Standard.*  
*Sec. 204. Environmental and resource conservation impacts.*  
*Sec. 205. Biomass based diesel and biodiesel labeling.*  
*Sec. 206. Study of credits for use of renewable electricity in electric vehicles.*  
*Sec. 207. Grants for production of advanced biofuels.*  
*Sec. 208. Integrated consideration of water quality in determinations on fuels and fuel additives.*

*Sec. 209. Anti-backsliding.*

*Sec. 210. Effective date, savings provision, and transition rules.*

*Subtitle B—Biofuels Research and Development*

*Sec. 221. Biodiesel.*

*Sec. 222. Biogas.*

*Sec. 223. Grants for biofuel production research and development in certain States.*

*Sec. 224. Biorefinery energy efficiency.*

*Sec. 225. Study of optimization of flexible fueled vehicles to use E-85 fuel.*

*Sec. 226. Study of engine durability and performance associated with the use of biodiesel.*

*Sec. 227. Study of optimization of biogas used in natural gas vehicles.*

*Sec. 228. Algal biomass.*

*Sec. 229. Biofuels and biorefinery information center.*

*Sec. 230. Cellulosic ethanol and biofuels research.*

*Sec. 231. Bioenergy research and development, authorization of appropriation.*

*Sec. 232. Environmental research and development.*

*Sec. 233. Bioenergy research centers.*

*Sec. 234. University based research and development grant program.*

*Subtitle C—Biofuels Infrastructure*

*Sec. 241. Prohibition on franchise agreement restrictions related to renewable fuel infrastructure.*

*Sec. 242. Renewable fuel dispenser requirements.*

*Sec. 243. Ethanol pipeline feasibility study.*

*Sec. 244. Renewable fuel infrastructure grants.*

*Sec. 245. Study of the adequacy of transportation of domestically-produced renewable fuel by railroads and other modes of transportation.*

*Sec. 246. Federal fleet fueling centers.*

*Sec. 247. Standard specifications for biodiesel.*

*Sec. 248. Biofuels distribution and advanced biofuels infrastructure.*

*Subtitle D—Environmental Safeguards*

*Sec. 251. Waiver for fuel or fuel additives.*

**TITLE III—ENERGY SAVINGS THROUGH IMPROVED STANDARDS  
FOR APPLIANCE AND LIGHTING**

*Subtitle A—Appliance Energy Efficiency*

*Sec. 301. External power supply efficiency standards.*

*Sec. 302. Updating appliance test procedures.*

*Sec. 303. Residential boilers.*

*Sec. 304. Furnace fan standard process.*

*Sec. 305. Improving schedule for standards updating and clarifying State authority.*

*Sec. 306. Regional standards for furnaces, central air conditioners, and heat pumps.*

*Sec. 307. Procedure for prescribing new or amended standards.*

*Sec. 308. Expedited rulemakings.*

*Sec. 309. Battery chargers.*

*Sec. 310. Standby mode.*

*Sec. 311. Energy standards for home appliances.*

- Sec. 312. Walk-in coolers and walk-in freezers.*
- Sec. 313. Electric motor efficiency standards.*
- Sec. 314. Standards for single package vertical air conditioners and heat pumps.*
- Sec. 315. Improved energy efficiency for appliances and buildings in cold climates.*
- Sec. 316. Technical corrections.*

*Subtitle B—Lighting Energy Efficiency*

- Sec. 321. Efficient light bulbs.*
- Sec. 322. Incandescent reflector lamp efficiency standards.*
- Sec. 323. Public building energy efficient and renewable energy systems.*
- Sec. 324. Metal halide lamp fixtures.*
- Sec. 325. Energy efficiency labeling for consumer electronic products.*

*TITLE IV—ENERGY SAVINGS IN BUILDINGS AND INDUSTRY*

- Sec. 401. Definitions.*

*Subtitle A—Residential Building Efficiency*

- Sec. 411. Reauthorization of weatherization assistance program.*
- Sec. 412. Study of renewable energy rebate programs.*
- Sec. 413. Energy code improvements applicable to manufactured housing.*

*Subtitle B—High-Performance Commercial Buildings*

- Sec. 421. Commercial high-performance green buildings.*
- Sec. 422. Zero Net Energy Commercial Buildings Initiative.*
- Sec. 423. Public outreach.*

*Subtitle C—High-Performance Federal Buildings*

- Sec. 431. Energy reduction goals for Federal buildings.*
- Sec. 432. Management of energy and water efficiency in Federal buildings.*
- Sec. 433. Federal building energy efficiency performance standards.*
- Sec. 434. Management of Federal building efficiency.*
- Sec. 435. Leasing.*
- Sec. 436. High-performance green Federal buildings.*
- Sec. 437. Federal green building performance.*
- Sec. 438. Storm water runoff requirements for Federal development projects.*
- Sec. 439. Cost-effective technology acceleration program.*
- Sec. 440. Authorization of appropriations.*
- Sec. 441. Public building life-cycle costs.*

*Subtitle D—Industrial Energy Efficiency*

- Sec. 451. Industrial energy efficiency.*
- Sec. 452. Energy-intensive industries program.*
- Sec. 453. Energy efficiency for data center buildings.*

*Subtitle E—Healthy High-Performance Schools*

- Sec. 461. Healthy high-performance schools.*
- Sec. 462. Study on indoor environmental quality in schools.*

*Subtitle F—Institutional Entities*

- Sec. 471. Energy sustainability and efficiency grants and loans for institutions.*

*Subtitle G—Public and Assisted Housing*

*Sec. 481. Application of International Energy Conservation Code to public and assisted housing.*

*Subtitle H—General Provisions*

*Sec. 491. Demonstration project.*

*Sec. 492. Research and development.*

*Sec. 493. Environmental Protection Agency demonstration grant program for local governments.*

*Sec. 494. Green Building Advisory Committee.*

*Sec. 495. Advisory Committee on Energy Efficiency Finance.*

**TITLE V—ENERGY SAVINGS IN GOVERNMENT AND PUBLIC INSTITUTIONS**

*Subtitle A—United States Capitol Complex*

*Sec. 501. Capitol complex photovoltaic roof feasibility studies.*

*Sec. 502. Capitol complex E-85 refueling station.*

*Sec. 503. Energy and environmental measures in Capitol complex master plan.*

*Sec. 504. Promoting maximum efficiency in operation of Capitol power plant.*

*Sec. 505. Capitol power plant carbon dioxide emissions feasibility study and demonstration projects.*

*Subtitle B—Energy Savings Performance Contracting*

*Sec. 511. Authority to enter into contracts; reports.*

*Sec. 512. Financing flexibility.*

*Sec. 513. Promoting long-term energy savings performance contracts and verifying savings.*

*Sec. 514. Permanent reauthorization.*

*Sec. 515. Definition of energy savings.*

*Sec. 516. Retention of savings.*

*Sec. 517. Training Federal contracting officers to negotiate energy efficiency contracts.*

*Sec. 518. Study of energy and cost savings in nonbuilding applications.*

*Subtitle C—Energy Efficiency in Federal Agencies*

*Sec. 521. Installation of photovoltaic system at Department of Energy headquarters building.*

*Sec. 522. Prohibition on incandescent lamps by Coast Guard.*

*Sec. 523. Standard relating to solar hot water heaters.*

*Sec. 524. Federally-procured appliances with standby power.*

*Sec. 525. Federal procurement of energy efficient products.*

*Sec. 526. Procurement and acquisition of alternative fuels.*

*Sec. 527. Government efficiency status reports.*

*Sec. 528. OMB government efficiency reports and scorecards.*

*Sec. 529. Electricity sector demand response.*

*Subtitle D—Energy Efficiency of Public Institutions*

*Sec. 531. Reauthorization of State energy programs.*

*Sec. 532. Utility energy efficiency programs.*

*Subtitle E—Energy Efficiency and Conservation Block Grants*

- Sec. 541. Definitions.*
- Sec. 542. Energy Efficiency and Conservation Block Grant Program.*
- Sec. 543. Allocation of funds.*
- Sec. 544. Use of funds.*
- Sec. 545. Requirements for eligible entities.*
- Sec. 546. Competitive grants.*
- Sec. 547. Review and evaluation.*
- Sec. 548. Funding.*

**TITLE VI—ACCELERATED RESEARCH AND DEVELOPMENT**

*Subtitle A—Solar Energy*

- Sec. 601. Short title.*
- Sec. 602. Thermal energy storage research and development program.*
- Sec. 603. Concentrating solar power commercial application studies.*
- Sec. 604. Solar energy curriculum development and certification grants.*
- Sec. 605. Daylighting systems and direct solar light pipe technology.*
- Sec. 606. Solar Air Conditioning Research and Development Program.*
- Sec. 607. Photovoltaic demonstration program.*

*Subtitle B—Geothermal Energy*

- Sec. 611. Short title.*
- Sec. 612. Definitions.*
- Sec. 613. Hydrothermal research and development.*
- Sec. 614. General geothermal systems research and development.*
- Sec. 615. Enhanced geothermal systems research and development.*
- Sec. 616. Geothermal energy production from oil and gas fields and recovery and production of geopressured gas resources.*
- Sec. 617. Cost sharing and proposal evaluation.*
- Sec. 618. Center for geothermal technology transfer.*
- Sec. 619. GeoPowering America.*
- Sec. 620. Educational pilot program.*
- Sec. 621. Reports.*
- Sec. 622. Applicability of other laws.*
- Sec. 623. Authorization of appropriations.*
- Sec. 624. International geothermal energy development.*
- Sec. 625. High cost region geothermal energy grant program.*

*Subtitle C—Marine and Hydrokinetic Renewable Energy Technologies*

- Sec. 631. Short title.*
- Sec. 632. Definition.*
- Sec. 633. Marine and hydrokinetic renewable energy research and development.*
- Sec. 634. National Marine Renewable Energy Research, Development, and Demonstration Centers.*
- Sec. 635. Applicability of other laws.*
- Sec. 636. Authorization of appropriations.*

*Subtitle D—Energy Storage for Transportation and Electric Power*

- Sec. 641. Energy storage competitiveness.*

*Subtitle E—Miscellaneous Provisions*

- Sec. 651. Lightweight materials research and development.*
- Sec. 652. Commercial insulation demonstration program.*
- Sec. 653. Technical criteria for clean coal power Initiative.*
- Sec. 654. H-Prize.*
- Sec. 655. Bright Tomorrow Lighting Prizes.*
- Sec. 656. Renewable Energy innovation manufacturing partnership.*

**TITLE VII—CARBON CAPTURE AND SEQUESTRATION**

*Subtitle A—Carbon Capture and Sequestration Research, Development, and Demonstration*

- Sec. 701. Short title.*
- Sec. 702. Carbon capture and sequestration research, development, and demonstration program.*
- Sec. 703. Carbon capture.*
- Sec. 704. Review of large-scale programs.*
- Sec. 705. Geologic sequestration training and research.*
- Sec. 706. Relation to Safe Drinking Water Act.*
- Sec. 707. Safety research.*
- Sec. 708. University based research and development grant program.*

*Subtitle B—Carbon Capture and Sequestration Assessment and Framework*

- Sec. 711. Carbon dioxide sequestration capacity assessment.*
- Sec. 712. Assessment of carbon sequestration and methane and nitrous oxide emissions from ecosystems.*
- Sec. 713. Carbon dioxide sequestration inventory.*
- Sec. 714. Framework for geological carbon sequestration on public land.*

**TITLE VIII—IMPROVED MANAGEMENT OF ENERGY POLICY**

*Subtitle A—Management Improvements*

- Sec. 801. National media campaign.*
- Sec. 802. Alaska Natural Gas Pipeline administration.*
- Sec. 803. Renewable energy deployment.*
- Sec. 804. Coordination of planned refinery outages.*
- Sec. 805. Assessment of resources.*
- Sec. 806. Sense of Congress relating to the use of renewable resources to generate energy.*
- Sec. 807. Geothermal assessment, exploration information, and priority activities.*

*Subtitle B—Prohibitions on Market Manipulation and False Information*

- Sec. 811. Prohibition on market manipulation.*
- Sec. 812. Prohibition on false information.*
- Sec. 813. Enforcement by the Federal Trade Commission.*
- Sec. 814. Penalties.*
- Sec. 815. Effect on other laws.*

**TITLE IX—INTERNATIONAL ENERGY PROGRAMS**

- Sec. 901. Definitions.*

*Subtitle A—Assistance to Promote Clean and Efficient Energy Technologies in Foreign Countries*

- Sec. 911. United States assistance for developing countries.*  
*Sec. 912. United States exports and outreach programs for India, China, and other countries.*  
*Sec. 913. United States trade missions to encourage private sector trade and investment.*  
*Sec. 914. Actions by Overseas Private Investment Corporation.*  
*Sec. 915. Actions by United States Trade and Development Agency.*  
*Sec. 916. Deployment of international clean and efficient energy technologies and investment in global energy markets.*  
*Sec. 917. United States-Israel energy cooperation.*

*Subtitle B—International Clean Energy Foundation*

- Sec. 921. Definitions.*  
*Sec. 922. Establishment and management of Foundation.*  
*Sec. 923. Duties of Foundation.*  
*Sec. 924. Annual report.*  
*Sec. 925. Powers of the Foundation; related provisions.*  
*Sec. 926. General personnel authorities.*  
*Sec. 927. Authorization of appropriations.*

*Subtitle C—Miscellaneous Provisions*

- Sec. 931. Energy diplomacy and security within the Department of State.*  
*Sec. 932. National Security Council reorganization.*  
*Sec. 933. Annual national energy security strategy report.*  
*Sec. 934. Convention on Supplementary Compensation for Nuclear Damage contingent cost allocation.*  
*Sec. 935. Transparency in extractive industries resource payments.*

**TITLE X—GREEN JOBS**

- Sec. 1001. Short title.*  
*Sec. 1002. Energy efficiency and renewable energy worker training program.*

**TITLE XI—ENERGY TRANSPORTATION AND INFRASTRUCTURE**

*Subtitle A—Department of Transportation*

- Sec. 1101. Office of Climate Change and Environment.*

*Subtitle B—Railroads*

- Sec. 1111. Advanced technology locomotive grant pilot program.*  
*Sec. 1112. Capital grants for class II and class III railroads.*

*Subtitle C—Marine Transportation*

- Sec. 1121. Short sea transportation initiative.*  
*Sec. 1122. Short sea shipping eligibility for capital construction fund.*  
*Sec. 1123. Short sea transportation report.*

*Subtitle D—Highways*

- Sec. 1131. Increased Federal share for CMAQ projects.*  
*Sec. 1132. Distribution of rescissions.*



*Sec. 1133. Sense of Congress regarding use of complete streets design techniques.*

#### **TITLE XII—SMALL BUSINESS ENERGY PROGRAMS**

- Sec. 1201. Express loans for renewable energy and energy efficiency.*  
*Sec. 1202. Pilot program for reduced 7(a) fees for purchase of energy efficient technologies.*  
*Sec. 1203. Small business energy efficiency.*  
*Sec. 1204. Larger 504 loan limits to help business develop energy efficient technologies and purchases.*  
*Sec. 1205. Energy saving debentures.*  
*Sec. 1206. Investments in energy saving small businesses.*  
*Sec. 1207. Renewable fuel capital investment company.*  
*Sec. 1208. Study and report.*

#### **TITLE XIII—SMART GRID**

- Sec. 1301. Statement of policy on modernization of electricity grid.*  
*Sec. 1302. Smart grid system report.*  
*Sec. 1303. Smart grid advisory committee and smart grid task force.*  
*Sec. 1304. Smart grid technology research, development, and demonstration.*  
*Sec. 1305. Smart grid interoperability framework.*  
*Sec. 1306. Federal matching fund for smart grid investment costs.*  
*Sec. 1307. State consideration of smart grid.*  
*Sec. 1308. Study of the effect of private wire laws on the development of combined heat and power facilities.*  
*Sec. 1309. DOE study of security attributes of smart grid systems.*

#### **TITLE XIV—POOL AND SPA SAFETY**

- Sec. 1401. Short title.*  
*Sec. 1402. Findings.*  
*Sec. 1403. Definitions.*  
*Sec. 1404. Federal swimming pool and spa drain cover standard.*  
*Sec. 1405. State swimming pool safety grant program.*  
*Sec. 1406. Minimum State law requirements.*  
*Sec. 1407. Education program.*  
*Sec. 1408. CPSC report.*

#### **TITLE XV—REVENUE PROVISIONS**

- Sec. 1500. Amendment of 1986 Code.*  
*Sec. 1501. Extension of additional 0.2 percent FUTA surtax.*  
*Sec. 1502. 7-year amortization of geological and geophysical expenditures for certain major integrated oil companies.*

#### **TITLE XVI—EFFECTIVE DATE**

- Sec. 1601. Effective date.*

### **1 SEC. 2. DEFINITIONS.**

2 *In this Act:*

- 3 (1) *DEPARTMENT.*—The term “Department”  
 4 *means the Department of Energy.*

1           (2) *INSTITUTION OF HIGHER EDUCATION.*—The  
 2           term “institution of higher education” has the mean-  
 3           ing given the term in section 101(a) of the Higher  
 4           Education Act of 1965 (20 U.S.C. 1001(a)).

5           (3) *SECRETARY.*—The term “Secretary” means  
 6           the Secretary of Energy.

7   **SEC. 3. RELATIONSHIP TO OTHER LAW.**

8           *Except to the extent expressly provided in this Act or*  
 9           *an amendment made by this Act, nothing in this Act or*  
 10          *an amendment made by this Act supersedes, limits the au-*  
 11          *thority provided or responsibility conferred by, or author-*  
 12          *izes any violation of any provision of law (including a reg-*  
 13          *ulation), including any energy or environmental law or*  
 14          *regulation.*

15   **TITLE     I—ENERGY     SECURITY**  
 16       **THROUGH IMPROVED VEHI-**  
 17       **CLE FUEL ECONOMY**

18       **Subtitle A—Increased Corporate**  
 19       **Average Fuel Economy Standards**

20   **SEC. 101. SHORT TITLE.**

21           *This subtitle may be cited as the “Ten-in-Ten Fuel*  
 22          *Economy Act”.*

1 **SEC. 102. AVERAGE FUEL ECONOMY STANDARDS FOR AUTO-**  
 2 **MOBILES AND CERTAIN OTHER VEHICLES.**

3 (a) *INCREASED STANDARDS.*—Section 32902 of title  
 4 49, United States Code, is amended—

5 (1) in subsection (a)—

6 (A) by striking “NON-PASSENGER AUTO-  
 7 MOBILES.—” and inserting “PRESCRIPTION OF  
 8 STANDARDS BY REGULATION.—”;

9 (B) by striking “(except passenger auto-  
 10 mobiles)” in subsection (a); and

11 (C) by striking the last sentence;

12 (2) by striking subsection (b) and inserting the  
 13 following:

14 “(b) *STANDARDS FOR AUTOMOBILES AND CERTAIN*  
 15 *OTHER VEHICLES.*—

16 “(1) *IN GENERAL.*—The Secretary of Transpor-  
 17 tation, after consultation with the Secretary of En-  
 18 ergy and the Administrator of the Environmental  
 19 Protection Agency, shall prescribe separate average  
 20 fuel economy standards for—

21 “(A) passenger automobiles manufactured  
 22 by manufacturers in each model year beginning  
 23 with model year 2011 in accordance with this  
 24 subsection;

25 “(B) non-passenger automobiles manufac-  
 26 tured by manufacturers in each model year be-

1        *ginning with model year 2011 in accordance*  
 2        *with this subsection; and*

3                *“(C) work trucks and commercial medium-*  
 4        *duty or heavy-duty on-highway vehicles in ac-*  
 5        *cordance with subsection (k).*

6                *“(2) FUEL ECONOMY STANDARDS FOR AUTO-*  
 7        *MOBILES.—*

8                *“(A) AUTOMOBILE FUEL ECONOMY AVERAGE*  
 9        *FOR MODEL YEARS 2011 THROUGH 2020.—The*  
 10        *Secretary shall prescribe a separate average fuel*  
 11        *economy standard for passenger automobiles and*  
 12        *a separate average fuel economy standard for*  
 13        *non-passenger automobiles for each model year*  
 14        *beginning with model year 2011 to achieve a*  
 15        *combined fuel economy average for model year*  
 16        *2020 of at least 35 miles per gallon for the total*  
 17        *fleet of passenger and non-passenger automobiles*  
 18        *manufactured for sale in the United States for*  
 19        *that model year.*

20                *“(B) AUTOMOBILE FUEL ECONOMY AVERAGE*  
 21        *FOR MODEL YEARS 2021 THROUGH 2030.—For*  
 22        *model years 2021 through 2030, the average fuel*  
 23        *economy required to be attained by each fleet of*  
 24        *passenger and non-passenger automobiles manu-*  
 25        *factured for sale in the United States shall be the*

1       *maximum feasible average fuel economy stand-*  
 2       *ard for each fleet for that model year.*

3               “(C) *PROGRESS TOWARD STANDARD RE-*  
 4       *QUIRED.—In prescribing average fuel economy*  
 5       *standards under subparagraph (A), the Sec-*  
 6       *retary shall prescribe annual fuel economy*  
 7       *standard increases that increase the applicable*  
 8       *average fuel economy standard ratably beginning*  
 9       *with model year 2011 and ending with model*  
 10       *year 2020.*

11              “(3) *AUTHORITY OF THE SECRETARY.—The Sec-*  
 12       *retary shall—*

13               “(A) *prescribe by regulation separate aver-*  
 14       *age fuel economy standards for passenger and*  
 15       *non-passenger automobiles based on 1 or more*  
 16       *vehicle attributes related to fuel economy and ex-*  
 17       *press each standard in the form of a mathe-*  
 18       *matical function; and*

19               “(B) *issue regulations under this title pre-*  
 20       *scribing average fuel economy standards for at*  
 21       *least 1, but not more than 5, model years.*

22              “(4) *MINIMUM STANDARD.—In addition to any*  
 23       *standard prescribed pursuant to paragraph (3), each*  
 24       *manufacturer shall also meet the minimum standard*

1       *for domestically manufactured passenger automobiles,*  
 2       *which shall be the greater of—*

3               “(A) 27.5 miles per gallon; or

4               “(B) 92 percent of the average fuel economy  
 5       *projected by the Secretary for the combined do-*  
 6       *mestic and non-domestic passenger automobile*  
 7       *fleets manufactured for sale in the United States*  
 8       *by all manufacturers in the model year, which*  
 9       *projection shall be published in the Federal Reg-*  
 10       *ister when the standard for that model year is*  
 11       *promulgated in accordance with this section.”;*  
 12       *and*

13       *(3) in subsection (c)—*

14               (A) by striking “(1) Subject to paragraph  
 15       (2) of this subsection, the” and inserting “The”;  
 16       *and*

17               (B) by striking paragraph (2).

18       (b) *FUEL ECONOMY STANDARD FOR COMMERCIAL ME-*  
 19       *DIUM-DUTY AND HEAVY-DUTY ON-HIGHWAY VEHICLES*  
 20       *AND WORK TRUCKS.—Section 32902 of title 49, United*  
 21       *States Code, is amended by adding at the end the following:*

22               “(k) *COMMERCIAL MEDIUM- AND HEAVY-DUTY ON-*  
 23       *HIGHWAY VEHICLES AND WORK TRUCKS.—*

24               “(1) *STUDY.—Not later than 1 year after the*  
 25       *National Academy of Sciences publishes the results of*

1        *its study under section 108 of the Ten-in-Ten Fuel*  
2        *Economy Act, the Secretary of Transportation, in*  
3        *consultation with the Secretary of Energy and the*  
4        *Administrator of the Environmental Protection Agen-*  
5        *cy, shall examine the fuel efficiency of commercial*  
6        *medium- and heavy-duty on-highway vehicles and*  
7        *work trucks and determine—*

8                *“(A) the appropriate test procedures and*  
9                *methodologies for measuring the fuel efficiency of*  
10               *such vehicles and work trucks;*

11               *“(B) the appropriate metric for measuring*  
12               *and expressing commercial medium- and heavy-*  
13               *duty on-highway vehicle and work truck fuel effi-*  
14               *ciency performance, taking into consideration,*  
15               *among other things, the work performed by such*  
16               *on-highway vehicles and work trucks and types*  
17               *of operations in which they are used;*

18               *“(C) the range of factors, including, without*  
19               *limitation, design, functionality, use, duty cycle,*  
20               *infrastructure, and total overall energy consump-*  
21               *tion and operating costs that affect commercial*  
22               *medium- and heavy-duty on-highway vehicle and*  
23               *work truck fuel efficiency; and*

24               *“(D) such other factors and conditions that*  
25               *could have an impact on a program to improve*

1           *commercial medium- and heavy-duty on-high-*  
2           *way vehicle and work truck fuel efficiency.*

3           “(2) *RULEMAKING.*—*Not later than 24 months*  
4           *after completion of the study required under para-*  
5           *graph (1), the Secretary, in consultation with the Sec-*  
6           *retary of Energy and the Administrator of the Envi-*  
7           *ronmental Protection Agency, by regulation, shall de-*  
8           *termine in a rulemaking proceeding how to imple-*  
9           *ment a commercial medium- and heavy-duty on-high-*  
10          *way vehicle and work truck fuel efficiency improve-*  
11          *ment program designed to achieve the maximum fea-*  
12          *sible improvement, and shall adopt and implement*  
13          *appropriate test methods, measurement metrics, fuel*  
14          *economy standards, and compliance and enforcement*  
15          *protocols that are appropriate, cost-effective, and tech-*  
16          *nologically feasible for commercial medium- and*  
17          *heavy-duty on-highway vehicles and work trucks. The*  
18          *Secretary may prescribe separate standards for dif-*  
19          *ferent classes of vehicles under this subsection.*

20          “(3) *LEAD-TIME; REGULATORY STABILITY.*—*The*  
21          *commercial medium- and heavy-duty on-highway ve-*  
22          *hicle and work truck fuel economy standard adopted*  
23          *pursuant to this subsection shall provide not less*  
24          *than—*



1                   “(A) 4 full model years of regulatory lead-  
2                   time; and

3                   “(B) 3 full model years of regulatory sta-  
4                   bility.”.

5 **SEC. 103. DEFINITIONS.**

6           (a) *IN GENERAL.*—Section 32901(a) of title 49, United  
7 States Code, is amended—

8                   (1) by striking paragraph (3) and inserting the  
9                   following:

10                   “(3) except as provided in section 32908 of this  
11                   title, ‘automobile’ means a 4-wheeled vehicle that is  
12                   propelled by fuel, or by alternative fuel, manufactured  
13                   primarily for use on public streets, roads, and high-  
14                   ways and rated at less than 10,000 pounds gross vehi-  
15                   cle weight, except—

16                   “(A) a vehicle operated only on a rail line;

17                   “(B) a vehicle manufactured in different  
18                   stages by 2 or more manufacturers, if no inter-  
19                   mediate or final-stage manufacturer of that vehi-  
20                   cle manufactures more than 10,000 multi-stage  
21                   vehicles per year; or

22                   “(C) a work truck.”;

23                   (2) by redesignating paragraphs (7) through (16)  
24                   as paragraphs (8) through (17), respectively;

1           (3) *by inserting after paragraph (6) the fol-*  
 2           *lowing:*

3           “(7) ‘commercial medium- and heavy-duty on-  
 4           highway vehicle’ means an on-highway vehicle with a  
 5           gross vehicle weight rating of 10,000 pounds or  
 6           more.”;

7           (4) *in paragraph (9)(A), as redesignated, by in-*  
 8           *serting “or a mixture of biodiesel and diesel fuel meet-*  
 9           *ing the standard established by the American Society*  
 10          *for Testing and Materials or under section 211(u) of*  
 11          *the Clean Air Act (42 U.S.C. 7545(u)) for fuel con-*  
 12          *taining 20 percent biodiesel (commonly known as*  
 13          *‘B20’)” after “alternative fuel”;*

14          (5) *by redesignating paragraph (17), as redesign-*  
 15          *ated, as paragraph (18);*

16          (6) *by inserting after paragraph (16), as redesign-*  
 17          *ated, the following:*

18          “(17) ‘non-passenger automobile’ means an auto-  
 19          mobile that is not a passenger automobile or a work  
 20          truck.”; and

21          (7) *by adding at the end the following:*

22          “(19) ‘work truck’ means a vehicle that—

23                  “(A) is rated at between 8,500 and 10,000  
 24                  pounds gross vehicle weight; and

1           “(B) is not a medium-duty passenger vehi-  
 2           cle (as defined in section 86.1803–01 of title 40,  
 3           Code of Federal Regulations, as in effect on the  
 4           date of the enactment of the Ten-in-Ten Fuel  
 5           Economy Act).”.

6 **SEC. 104. CREDIT TRADING PROGRAM.**

7           (a) *IN GENERAL*.—Section 32903 of title 49, United  
 8           States Code, is amended—

9                   (1) by striking “section 32902(b)–(d) of this  
 10           title” each place it appears and inserting “subsections  
 11           (a) through (d) of section 32902”;

12                   (2) in subsection (a)(2)—

13                           (A) by striking “3 consecutive model years”  
 14                           and inserting “5 consecutive model years”;

15                           (B) by striking “clause (1) of this sub-  
 16                           section,” and inserting “paragraph (1)”;

17                   (3) by redesignating subsection (f) as subsection  
 18           (h); and

19                   (4) by inserting after subsection (e) the following:

20           “(f) *CREDIT TRADING AMONG MANUFACTURERS*.—

21                   “(1) *IN GENERAL*.—The Secretary of Transpor-  
 22           tation may establish, by regulation, a fuel economy  
 23           credit trading program to allow manufacturers whose  
 24           automobiles exceed the average fuel economy stand-  
 25           ards prescribed under section 32902 to earn credits to

1        *be sold to manufacturers whose automobiles fail to*  
 2        *achieve the prescribed standards such that the total*  
 3        *oil savings associated with manufacturers that exceed*  
 4        *the prescribed standards are preserved when trading*  
 5        *credits to manufacturers that fail to achieve the pre-*  
 6        *scribed standards.*

7                “(2) *LIMITATION.—The trading of credits by a*  
 8        *manufacturer to the category of passenger automobiles*  
 9        *manufactured domestically is limited to the extent*  
 10        *that the fuel economy level of such automobiles shall*  
 11        *comply with the requirements of section 32902(b)(4),*  
 12        *without regard to any trading of credits from other*  
 13        *manufacturers.*

14                “(g) *CREDIT TRANSFERRING WITHIN A MANUFAC-*  
 15        *TURER’S FLEET.—*

16                “(1) *IN GENERAL.—The Secretary of Transpor-*  
 17        *tation shall establish by regulation a fuel economy*  
 18        *credit transferring program to allow any manufac-*  
 19        *turer whose automobiles exceed any of the average fuel*  
 20        *economy standards prescribed under section 32902 to*  
 21        *transfer the credits earned under this section and to*  
 22        *apply such credits within that manufacturer’s fleet to*  
 23        *a compliance category of automobiles that fails to*  
 24        *achieve the prescribed standards.*

1           “(2) *YEARS FOR WHICH USED.*—Credits trans-  
 2       ferred under this subsection are available to be used  
 3       in the same model years that the manufacturer could  
 4       have applied such credits under subsections (a), (b),  
 5       (d), and (e), as well as for the model year in which  
 6       the manufacturer earned such credits.

7           “(3) *MAXIMUM INCREASE.*—The maximum in-  
 8       crease in any compliance category attributable to  
 9       transferred credits is—

10               “(A) for model years 2011 through 2013,  
 11               1.0 mile per gallon;

12               “(B) for model years 2014 through 2017,  
 13               1.5 miles per gallon; and

14               “(C) for model year 2018 and subsequent  
 15               model years, 2.0 miles per gallon.

16           “(4) *LIMITATION.*—The transfer of credits by a  
 17       manufacturer to the category of passenger automobiles  
 18       manufactured domestically is limited to the extent  
 19       that the fuel economy level of such automobiles shall  
 20       comply with the requirements under section  
 21       32904(b)(4), without regard to any transfer of credits  
 22       from other categories of automobiles described in  
 23       paragraph (6)(B).

1           “(5) *YEARS AVAILABLE*.—A credit may be trans-  
 2           ferred under this subsection only if it is earned after  
 3           model year 2010.

4           “(6) *DEFINITIONS*.—In this subsection:

5                   “(A) *FLEET*.—The term ‘fleet’ means all  
 6                   automobiles manufactured by a manufacturer in  
 7                   a particular model year.

8                   “(B) *COMPLIANCE CATEGORY OF AUTO-*  
 9                   *MOBILES*.—The term ‘compliance category of  
 10                  automobiles’ means any of the following 3 cat-  
 11                  egories of automobiles for which compliance is  
 12                  separately calculated under this chapter:

13                           “(i) *Passenger automobiles manufac-*  
 14                           *tured domestically.*

15                           “(ii) *Passenger automobiles not manu-*  
 16                           *factured domestically.*

17                           “(iii) *Non-passenger automobiles.*”.

18           (b) *CONFORMING AMENDMENTS*.—

19                   (1) *LIMITATIONS*.—Section 32902(h) of title 49,  
 20                   *United States Code*, is amended—

21                           (A) in paragraph (1), by striking “and” at  
 22                           the end;

23                           (B) in paragraph (2), by striking the period  
 24                           at the end and inserting “; and”; and

25                           (C) by adding at the end the following:

“(3) may not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under section 32903.”.

(2) *SEPARATE CALCULATIONS.*—Section 32904(b)(1)(B) is amended by striking “chapter.” and inserting “chapter, except for the purposes of section 32903.”.

**SEC. 105. CONSUMER INFORMATION.**

Section 32908 of title 49, United States Code, is amended by adding at the end the following:

“(g) *CONSUMER INFORMATION.*—

“(1) *PROGRAM.*—The Secretary of Transportation, in consultation with the Secretary of Energy and the Administrator of the Environmental Protection Agency, shall develop and implement by rule a program to require manufacturers—

“(A) to label new automobiles sold in the United States with—

“(i) information reflecting an automobile’s performance on the basis of criteria that the Administrator shall develop, not later than 18 months after the date of the enactment of the Ten-in-Ten Fuel Economy Act, to reflect fuel economy and greenhouse

gas and other emissions over the useful life  
of the automobile;

“(ii) a rating system that would make  
it easy for consumers to compare the fuel  
economy and greenhouse gas and other  
emissions of automobiles at the point of  
purchase, including a designation of  
automobiles—

“(I) with the lowest greenhouse  
gas emissions over the useful life of the  
vehicles; and

“(II) the highest fuel economy;  
and

“(iii) a permanent and prominent display that an automobile is capable of operating on an alternative fuel; and

“(B) to include in the owner’s manual for  
vehicles capable of operating on alternative fuels  
information that describes that capability and  
the benefits of using alternative fuels, including  
the renewable nature and environmental benefits  
of using alternative fuels.

“(2) CONSUMER EDUCATION.—

“(A) IN GENERAL.—The Secretary of  
Transportation, in consultation with the Sec-



1        *retary of Energy and the Administrator of the*  
2        *Environmental Protection Agency, shall develop*  
3        *and implement by rule a consumer education*  
4        *program to improve consumer understanding of*  
5        *automobile performance described in paragraph*  
6        *(1)(A)(i) and to inform consumers of the benefits*  
7        *of using alternative fuel in automobiles and the*  
8        *location of stations with alternative fuel capac-*  
9        *ity.*

10        “(B) *FUEL SAVINGS EDUCATION CAM-*  
11        *PAIGN.—The Secretary of Transportation shall*  
12        *establish a consumer education campaign on the*  
13        *fuel savings that would be recognized from the*  
14        *purchase of vehicles equipped with thermal man-*  
15        *agement technologies, including energy efficient*  
16        *air conditioning systems and glass.*

17        “(3) *FUEL TANK LABELS FOR ALTERNATIVE*  
18        *FUEL AUTOMOBILES.—The Secretary of Transpor-*  
19        *tation shall by rule require a label to be attached to*  
20        *the fuel compartment of vehicles capable of operating*  
21        *on alternative fuels, with the form of alternative fuel*  
22        *stated on the label. A label attached in compliance*  
23        *with the requirements of section 32905(h) is deemed*  
24        *to meet the requirements of this paragraph.*

1           “(4) *RULEMAKING DEADLINE.*—*The Secretary of*  
 2           *Transportation shall issue a final rule under this sub-*  
 3           *section not later than 42 months after the date of the*  
 4           *enactment of the Ten-in-Ten Fuel Economy Act.*”.

5   **SEC. 106. CONTINUED APPLICABILITY OF EXISTING STAND-**  
 6                           **ARDS.**

7           *Nothing in this subtitle, or the amendments made by*  
 8           *this subtitle, shall be construed to affect the application of*  
 9           *section 32902 of title 49, United States Code, to passenger*  
 10          *automobiles or non-passenger automobiles manufactured be-*  
 11          *fore model year 2011.*

12   **SEC. 107. NATIONAL ACADEMY OF SCIENCES STUDIES.**

13          *(a) IN GENERAL.*—*As soon as practicable after the*  
 14          *date of enactment of this Act, the Secretary of Transpor-*  
 15          *tation shall execute an agreement with the National Acad-*  
 16          *emy of Sciences to develop a report evaluating vehicle fuel*  
 17          *economy standards, including—*

18                 *(1) an assessment of automotive technologies and*  
 19                 *costs to reflect developments since the Academy’s 2002*  
 20                 *report evaluating the corporate average fuel economy*  
 21                 *standards was conducted;*

22                 *(2) an analysis of existing and potential tech-*  
 23                 *nologies that may be used practically to improve*  
 24                 *automobile and medium-duty and heavy-duty truck*  
 25                 *fuel economy;*

1           (3) *an analysis of how such technologies may be*  
 2           *practically integrated into the automotive and me-*  
 3           *dium-duty and heavy-duty truck manufacturing*  
 4           *process; and*

5           (4) *an assessment of how such technologies may*  
 6           *be used to meet the new fuel economy standards under*  
 7           *chapter 329 of title 49, United States Code, as*  
 8           *amended by this subtitle.*

9           (b) *REPORT.*—*The Academy shall submit the report to*  
 10          *the Secretary, the Committee on Commerce, Science, and*  
 11          *Transportation of the Senate, and the Committee on Energy*  
 12          *and Commerce of the House of Representatives, with its*  
 13          *findings and recommendations not later than 5 years after*  
 14          *the date on which the Secretary executes the agreement with*  
 15          *the Academy.*

16          (c) *QUINQUENNIAL UPDATES.*—*After submitting the*  
 17          *initial report, the Academy shall update the report at 5*  
 18          *year intervals thereafter through 2025.*

19          **SEC. 108. NATIONAL ACADEMY OF SCIENCES STUDY OF ME-**  
 20                               **DIUM-DUTY AND HEAVY-DUTY TRUCK FUEL**  
 21                               **ECONOMY.**

22          (a) *IN GENERAL.*—*As soon as practicable after the*  
 23          *date of enactment of this Act, the Secretary of Transpor-*  
 24          *tation shall execute an agreement with the National Acad-*  
 25          *emy of Sciences to develop a report evaluating medium-*

1 *duty and heavy-duty truck fuel economy standards,*  
 2 *including—*

3           (1) *an assessment of technologies and costs to*  
 4           *evaluate fuel economy for medium-duty and heavy-*  
 5           *duty trucks;*

6           (2) *an analysis of existing and potential tech-*  
 7           *nologies that may be used practically to improve me-*  
 8           *dium-duty and heavy-duty truck fuel economy;*

9           (3) *an analysis of how such technologies may be*  
 10          *practically integrated into the medium-duty and*  
 11          *heavy-duty truck manufacturing process;*

12          (4) *an assessment of how such technologies may*  
 13          *be used to meet fuel economy standards to be pre-*  
 14          *scribed under section 32902(k) of title 49, United*  
 15          *States Code, as amended by this subtitle; and*

16          (5) *associated costs and other impacts on the op-*  
 17          *eration of medium-duty and heavy-duty trucks, in-*  
 18          *cluding congestion.*

19          (b) *REPORT.—The Academy shall submit the report to*  
 20          *the Secretary, the Committee on Commerce, Science, and*  
 21          *Transportation of the Senate, and the Committee on Energy*  
 22          *and Commerce of the House of Representatives, with its*  
 23          *findings and recommendations not later than 1 year after*  
 24          *the date on which the Secretary executes the agreement with*  
 25          *the Academy.*

1 **SEC. 109. EXTENSION OF FLEXIBLE FUEL VEHICLE CREDIT**  
 2 **PROGRAM.**

3 (a) *IN GENERAL.*—Section 32906 of title 49, United  
 4 States Code, is amended to read as follows:

5 **“§ 32906. Maximum fuel economy increase for alter-**  
 6 **native fuel automobiles**

7 “(a) *IN GENERAL.*—For each of model years 1993  
 8 through 2019 for each category of automobile (except an  
 9 electric automobile), the maximum increase in average fuel  
 10 economy for a manufacturer attributable to dual fueled  
 11 automobiles is—

12 “(1) 1.2 miles a gallon for each of model years  
 13 1993 through 2014;

14 “(2) 1.0 miles per gallon for model year 2015;

15 “(3) 0.8 miles per gallon for model year 2016;

16 “(4) 0.6 miles per gallon for model year 2017;

17 “(5) 0.4 miles per gallon for model year 2018;

18 “(6) 0.2 miles per gallon for model year 2019;

19 and

20 “(7) 0 miles per gallon for model years after  
 21 2019.

22 “(b) *CALCULATION.*—In applying subsection (a), the  
 23 Administrator of the Environmental Protection Agency  
 24 shall determine the increase in a manufacturer’s average  
 25 fuel economy attributable to dual fueled automobiles by sub-  
 26 tracting from the manufacturer’s average fuel economy cal-

1 *culated under section 32905(e) the number equal to what*  
 2 *the manufacturer’s average fuel economy would be if it were*  
 3 *calculated by the formula under section 32904(a)(1) by in-*  
 4 *cluding as the denominator for each model of dual fueled*  
 5 *automobiles the fuel economy when the automobiles are op-*  
 6 *erated on gasoline or diesel fuel.”.*

7 *(b) CONFORMING AMENDMENTS.—Section 32905 of*  
 8 *title 49, United States Code, is amended—*

9 *(1) in subsection (b), by striking “1993–2010,”*  
 10 *and inserting “1993 through 2019,”;*

11 *(2) in subsection (d), by striking “1993–2010,”*  
 12 *and inserting “1993 through 2019,”;*

13 *(3) by striking subsections (f) and (g); and*

14 *(4) by redesignating subsection (h) as subsection*  
 15 *(f).*

16 *(c) B20 BIODIESEL FLEXIBLE FUEL CREDIT.—Sec-*  
 17 *tion 32905(b)(2) of title 49, United States Code, is amended*  
 18 *to read as follows:*

19 *“(2) .5 divided by the fuel economy—*

20 *“(A) measured under subsection (a) when*  
 21 *operating the model on alternative fuel; or*

22 *“(B) measured based on the fuel content of*  
 23 *B20 when operating the model on B20, which is*  
 24 *deemed to contain 0.15 gallon of fuel.”.*

1 **SEC. 110. PERIODIC REVIEW OF ACCURACY OF FUEL ECON-**  
 2 **OMY LABELING PROCEDURES.**

3 *Beginning in December, 2009, and not less often than*  
 4 *every 5 years thereafter, the Administrator of the Environ-*  
 5 *mental Protection Agency, in consultation with the Sec-*  
 6 *retary of Transportation, shall—*

7 *(1) reevaluate the fuel economy labeling proce-*  
 8 *dures described in the final rule published in the Fed-*  
 9 *eral Register on December 27, 2006 (71 Fed. Reg.*  
 10 *77,872; 40 C.F.R. parts 86 and 600) to determine*  
 11 *whether changes in the factors used to establish the la-*  
 12 *beling procedures warrant a revision of that process;*  
 13 *and*

14 *(2) submit a report to the Committee on Com-*  
 15 *merce, Science, and Transportation of the Senate and*  
 16 *the Committee on Energy and Commerce of the House*  
 17 *of Representatives that describes the results of the re-*  
 18 *evaluation process.*

19 **SEC. 111. CONSUMER TIRE INFORMATION.**

20 *(a) IN GENERAL.—Chapter 323 of title 49, United*  
 21 *States Code, is amended by inserting after section 32304*  
 22 *the following:*

23 **“§ 32304A. Consumer tire information**

24 **“(a) RULEMAKING.—**

25 **“(1) IN GENERAL.—Not later than 24 months**  
 26 **after the date of enactment of the Ten-in-Ten Fuel**

1     *Economy Act, the Secretary of Transportation shall,*  
 2     *after notice and opportunity for comment, promulgate*  
 3     *rules establishing a national tire fuel efficiency con-*  
 4     *sumer information program for replacement tires de-*  
 5     *signed for use on motor vehicles to educate consumers*  
 6     *about the effect of tires on automobile fuel efficiency,*  
 7     *safety, and durability.*

8             “(2) *ITEMS INCLUDED IN RULE.—The rule-*  
 9     *making shall include—*

10            “(A) *a national tire fuel efficiency rating*  
 11     *system for motor vehicle replacement tires to as-*  
 12     *sist consumers in making more educated tire*  
 13     *purchasing decisions;*

14            “(B) *requirements for providing informa-*  
 15     *tion to consumers, including information at the*  
 16     *point of sale and other potential information*  
 17     *dissemination methods, including the Internet;*

18            “(C) *specifications for test methods for*  
 19     *manufacturers to use in assessing and rating*  
 20     *tires to avoid variation among test equipment*  
 21     *and manufacturers; and*

22            “(D) *a national tire maintenance consumer*  
 23     *education program including, information on*  
 24     *tire inflation pressure, alignment, rotation, and*



1           *tread wear to maximize fuel efficiency, safety,*  
 2           *and durability of replacement tires.*

3           “(3) *APPLICABILITY.—This section shall apply*  
 4           *only to replacement tires covered under section*  
 5           *575.104(c) of title 49, Code of Federal Regulations, in*  
 6           *effect on the date of the enactment of the Ten-in-Ten*  
 7           *Fuel Economy Act.*

8           “(b) *CONSULTATION.—The Secretary shall consult*  
 9           *with the Secretary of Energy and the Administrator of the*  
 10           *Environmental Protection Agency on the means of con-*  
 11           *veying tire fuel efficiency consumer information.*

12           “(c) *REPORT TO CONGRESS.—The Secretary shall con-*  
 13           *duct periodic assessments of the rules promulgated under*  
 14           *this section to determine the utility of such rules to con-*  
 15           *sumers, the level of cooperation by industry, and the con-*  
 16           *tribution to national goals pertaining to energy consump-*  
 17           *tion. The Secretary shall transmit periodic reports detail-*  
 18           *ing the findings of such assessments to the Senate Com-*  
 19           *mittee on Commerce, Science, and Transportation and the*  
 20           *House of Representatives Committee on Energy and Com-*  
 21           *merce.*

22           “(d) *TIRE MARKING.—The Secretary shall not require*  
 23           *permanent labeling of any kind on a tire for the purpose*  
 24           *of tire fuel efficiency information.*

1       “(e) *APPLICATION WITH STATE AND LOCAL LAWS AND*  
2 *REGULATIONS.*—*Nothing in this section prohibits a State*  
3 *or political subdivision thereof from enforcing a law or reg-*  
4 *ulation on tire fuel efficiency consumer information that*  
5 *was in effect on January 1, 2006. After a requirement pro-*  
6 *mulgated under this section is in effect, a State or political*  
7 *subdivision thereof may adopt or enforce a law or regula-*  
8 *tion on tire fuel efficiency consumer information enacted*  
9 *or promulgated after January 1, 2006, if the requirements*  
10 *of that law or regulation are identical to the requirement*  
11 *promulgated under this section. Nothing in this section*  
12 *shall be construed to preempt a State or political subdivi-*  
13 *sion thereof from regulating the fuel efficiency of tires (in-*  
14 *cluding establishing testing methods for determining com-*  
15 *pliance with such standards) not otherwise preempted*  
16 *under this chapter.”.*

17       (b) *ENFORCEMENT.*—*Section 32308 of title 49, United*  
18 *States Code, is amended—*

19               (1) *by redesignating subsections (c) and (d) as*  
20               *subsections (d) and (e), respectively; and*

21               (2) *by inserting after subsection (b) the fol-*  
22               *lowing:*

23       “(c) *SECTION 32304A.*—*Any person who fails to com-*  
24 *ply with the national tire fuel efficiency information pro-*  
25 *gram under section 32304A is liable to the United States*

1 *Government for a civil penalty of not more than \$50,000*  
 2 *for each violation.”.*

3 (c) *CONFORMING AMENDMENT.—The chapter analysis*  
 4 *for chapter 323 of title 49, United States Code, is amended*  
 5 *by inserting after the item relating to section 32304 the fol-*  
 6 *lowing:*

*“32304A. Consumer tire information”.*

7 ***SEC. 112. USE OF CIVIL PENALTIES FOR RESEARCH AND DE-***  
 8 ***VELOPMENT.***

9 *Section 32912 of title 49, United States Code, is*  
 10 *amended by adding at the end the following:*

11 *“(e) USE OF CIVIL PENALTIES.—For fiscal year 2008*  
 12 *and each fiscal year thereafter, from the total amount de-*  
 13 *posited in the general fund of the Treasury during the pre-*  
 14 *ceding fiscal year from fines, penalties, and other funds ob-*  
 15 *tained through enforcement actions conducted pursuant to*  
 16 *this section (including funds obtained under consent de-*  
 17 *crees), the Secretary of the Treasury, subject to the avail-*  
 18 *ability of appropriations, shall—*

19 *“(1) transfer 50 percent of such total amount to*  
 20 *the account providing appropriations to the Secretary*  
 21 *of Transportation for the administration of this chap-*  
 22 *ter, which shall be used by the Secretary to support*  
 23 *rulemaking under this chapter; and*

24 *“(2) transfer 50 percent of such total amount to*  
 25 *the account providing appropriations to the Secretary*

1       of Transportation for the administration of this chap-  
 2       ter, which shall be used by the Secretary to carry out  
 3       a program to make grants to manufacturers for re-  
 4       tooling, reequipping, or expanding existing manufac-  
 5       turing facilities in the United States to produce ad-  
 6       vanced technology vehicles and components.”.

7       **SEC. 113. EXEMPTION FROM SEPARATE CALCULATION RE-**  
 8                                   **QUIREMENT.**

9       (a) *REPEAL.*—Paragraphs (6), (7), and (8) of section  
 10   32904(b) of title 49, United States Code, are repealed.

11       (b) *EFFECT OF REPEAL ON EXISTING EXEMPTIONS.*—  
 12   Any exemption granted under section 32904(b)(6) of title  
 13   49, United States Code, prior to the date of the enactment  
 14   of this Act shall remain in effect subject to its terms through  
 15   model year 2013.

16       (c) *ACCRUAL AND USE OF CREDITS.*—Any manufac-  
 17   turer holding an exemption under section 32904(b)(6) of  
 18   title 49, United States Code, prior to the date of the enact-  
 19   ment of this Act may accrue and use credits under sections  
 20   32903 and 32905 of such title beginning with model year  
 21   2011.

22                   **Subtitle B—Improved Vehicle**  
 23                                   **Technology**

24       **SEC. 131. TRANSPORTATION ELECTRIFICATION.**

25       (a) *DEFINITIONS.*—In this section:

1           (1) *ADMINISTRATOR.*—*The term “Adminis-*  
 2           *trator” means the Administrator of the Environ-*  
 3           *mental Protection Agency.*

4           (2) *BATTERY.*—*The term “battery” means an*  
 5           *electrochemical energy storage system powered di-*  
 6           *rectly by electrical current.*

7           (3) *ELECTRIC TRANSPORTATION TECHNOLOGY.*—  
 8           *The term “electric transportation technology”*  
 9           *means—*

10                   (A) *technology used in vehicles that use an*  
 11                   *electric motor for all or part of the motive power*  
 12                   *of the vehicles, including battery electric, hybrid*  
 13                   *electric, plug-in hybrid electric, fuel cell, and*  
 14                   *plug-in fuel cell vehicles, or rail transportation;*  
 15                   *or*

16                   (B) *equipment relating to transportation or*  
 17                   *mobile sources of air pollution that use an elec-*  
 18                   *tric motor to replace an internal combustion en-*  
 19                   *gine for all or part of the work of the equipment,*  
 20                   *including—*

21                           (i) *corded electric equipment linked to*  
 22                           *transportation or mobile sources of air pol-*  
 23                           *lution; and*

1                   (ii) electrification technologies at air-  
 2                   ports, ports, truck stops, and material-han-  
 3                   dling facilities.

4                   (4) *NONROAD VEHICLE*.—The term “nonroad ve-  
 5                   hicle” means a vehicle—

6                   (A) powered—

7                   (i) by a nonroad engine, as that term  
 8                   is defined in section 216 of the Clean Air  
 9                   Act (42 U.S.C. 7550); or

10                  (ii) fully or partially by an electric  
 11                  motor powered by a fuel cell, a battery, or  
 12                  an off-board source of electricity; and

13                  (B) that is not a motor vehicle or a vehicle  
 14                  used solely for competition.

15                  (5) *PLUG-IN ELECTRIC DRIVE VEHICLE*.—The  
 16                  term “plug-in electric drive vehicle” means a vehicle  
 17                  that—

18                  (A) draws motive power from a battery  
 19                  with a capacity of at least 4 kilowatt-hours;

20                  (B) can be recharged from an external  
 21                  source of electricity for motive power; and

22                  (C) is a light-, medium-, or heavy-duty  
 23                  motor vehicle or nonroad vehicle (as those terms  
 24                  are defined in section 216 of the Clean Air Act  
 25                  (42 U.S.C. 7550)).

1           (6) *QUALIFIED ELECTRIC TRANSPORTATION*  
 2     *PROJECT.—The term “qualified electric transpor-*  
 3     *tation project” means an electric transportation tech-*  
 4     *nology project that would significantly reduce emis-*  
 5     *sions of criteria pollutants, greenhouse gas emissions,*  
 6     *and petroleum, including—*

7                     (A) *shipside or shoreside electrification for*  
 8     *vessels;*

9                     (B) *truck-stop electrification;*

10                    (C) *electric truck refrigeration units;*

11                    (D) *battery powered auxiliary power units*  
 12     *for trucks;*

13                    (E) *electric airport ground support equip-*  
 14     *ment;*

15                    (F) *electric material and cargo handling*  
 16     *equipment;*

17                    (G) *electric or dual-mode electric rail;*

18                    (H) *any distribution upgrades needed to*  
 19     *supply electricity to the project; and*

20                    (I) *any ancillary infrastructure, including*  
 21     *panel upgrades, battery chargers, in-situ trans-*  
 22     *formers, and trenching.*

23     (b) *PLUG-IN ELECTRIC DRIVE VEHICLE PROGRAM.—*

24                    (1) *ESTABLISHMENT.—The Secretary shall estab-*  
 25     *lish a competitive program to provide grants on a*

1 *cost-shared basis to State governments, local govern-*  
 2 *ments, metropolitan transportation authorities, air*  
 3 *pollution control districts, private or nonprofit enti-*  
 4 *ties, or combinations of those governments, authori-*  
 5 *ties, districts, and entities, to carry out 1 or more*  
 6 *projects to encourage the use of plug-in electric drive*  
 7 *vehicles or other emerging electric vehicle technologies,*  
 8 *as determined by the Secretary.*

9 (2) *ADMINISTRATION.—The Secretary shall, in*  
 10 *consultation with the Secretary of Transportation*  
 11 *and the Administrator, establish requirements for ap-*  
 12 *plications for grants under this section, including re-*  
 13 *porting of data to be summarized for dissemination*  
 14 *to grantees and the public, including safety, vehicle,*  
 15 *and component performance, and vehicle and compo-*  
 16 *nent life cycle costs.*

17 (3) *PRIORITY.—In making awards under this*  
 18 *subsection, the Secretary shall—*

19 (A) *give priority consideration to applica-*  
 20 *tions that—*

21 (i) *encourage early widespread use of*  
 22 *vehicles described in paragraph (1); and*

23 (ii) *are likely to make a significant*  
 24 *contribution to the advancement of the pro-*



1                   duction of the vehicles in the United States;  
 2                   and

3                   (B) ensure, to the maximum extent prac-  
 4                   ticable, that the program established under this  
 5                   subsection includes a variety of applications,  
 6                   manufacturers, and end-uses.

7                   (4) *REPORTING.*—The Secretary shall require a  
 8                   grant recipient under this subsection to submit to the  
 9                   Secretary, on an annual basis, data relating to safety,  
 10                  vehicle performance, life cycle costs, and emissions of  
 11                  vehicles demonstrated under the grant, including  
 12                  emissions of greenhouse gases.

13                  (5) *COST SHARING.*—Section 988 of the Energy  
 14                  Policy Act of 2005 (42 U.S.C. 16352) shall apply to  
 15                  a grant made under this subsection.

16                  (6) *AUTHORIZATION OF APPROPRIATIONS.*—  
 17                  There is authorized to be appropriated to carry out  
 18                  this subsection \$90,000,000 for each of fiscal years  
 19                  2008 through 2012, of which not less than  $\frac{1}{3}$  of the  
 20                  total amount appropriated shall be available each fis-  
 21                  cal year to make grants to local and municipal gov-  
 22                  ernments.

23                  (c) *NEAR-TERM TRANSPORTATION SECTOR ELEC-*  
 24                  *TRIFICATION PROGRAM.*—

1           (1) *IN GENERAL.*—Not later than 1 year after  
 2           the date of enactment of this Act, the Secretary, in  
 3           consultation with the Secretary of Transportation  
 4           and the Administrator, shall establish a program to  
 5           provide grants for the conduct of qualified electric  
 6           transportation projects.

7           (2) *PRIORITY.*—In providing grants under this  
 8           subsection, the Secretary shall give priority to large-  
 9           scale projects and large-scale aggregators of projects.

10          (3) *COST SHARING.*—Section 988 of the *Energy*  
 11          *Policy Act of 2005* (42 U.S.C. 16352) shall apply to  
 12          a grant made under this subsection.

13          (4) *AUTHORIZATION OF APPROPRIATIONS.*—  
 14          There is authorized to be appropriated to carry out  
 15          this subsection \$95,000,000 for each of fiscal years  
 16          2008 through 2013.

17          (d) *EDUCATION PROGRAM.*—

18               (1) *IN GENERAL.*—The Secretary shall develop a  
 19               nationwide electric drive transportation technology  
 20               education program under which the Secretary shall  
 21               provide—

22                       (A) teaching materials to secondary schools  
 23                       and high schools; and

1                   (B) assistance for programs relating to elec-  
 2                   tric drive system and component engineering to  
 3                   institutions of higher education.

4                   (2) *ELECTRIC VEHICLE COMPETITION.*—The pro-  
 5                   gram established under paragraph (1) shall include a  
 6                   plug-in hybrid electric vehicle competition for institu-  
 7                   tions of higher education, which shall be known as the  
 8                   “Dr. Andrew Frank Plug-In Electric Vehicle Com-  
 9                   petition”.

10                  (3) *ENGINEERS.*—In carrying out the program  
 11                  established under paragraph (1), the Secretary shall  
 12                  provide financial assistance to institutions of higher  
 13                  education to create new, or support existing, degree  
 14                  programs to ensure the availability of trained elec-  
 15                  trical and mechanical engineers with the skills nec-  
 16                  essary for the advancement of—

17                         (A) plug-in electric drive vehicles; and

18                         (B) other forms of electric drive transpor-  
 19                         tation technology vehicles.

20                  (4) *AUTHORIZATION OF APPROPRIATIONS.*—  
 21                  There are authorized to be appropriated such sums as  
 22                  may be necessary to carry out this subsection.

1 **SEC. 132. DOMESTIC MANUFACTURING CONVERSION GRANT**  
 2 **PROGRAM.**

3 *Section 712 of the Energy Policy Act of 2005 (42*  
 4 *U.S.C. 16062) is amended to read as follows:*

5 **“SEC. 712. DOMESTIC MANUFACTURING CONVERSION**  
 6 **GRANT PROGRAM.**

7 *“(a) PROGRAM.—*

8 *“(1) IN GENERAL.—The Secretary shall establish*  
 9 *a program to encourage domestic production and*  
 10 *sales of efficient hybrid and advanced diesel vehicles*  
 11 *and components of those vehicles.*

12 *“(2) INCLUSIONS.—The program shall include*  
 13 *grants to automobile manufacturers and suppliers*  
 14 *and hybrid component manufacturers to encourage*  
 15 *domestic production of efficient hybrid, plug-in elec-*  
 16 *tric hybrid, plug-in electric drive, and advanced die-*  
 17 *sel vehicles.*

18 *“(3) PRIORITY.—Priority shall be given to the*  
 19 *refurbishment or retooling of manufacturing facilities*  
 20 *that have recently ceased operation or will cease oper-*  
 21 *ation in the near future.*

22 *“(b) COORDINATION WITH STATE AND LOCAL PRO-*  
 23 *GRAMS.—The Secretary may coordinate implementation of*  
 24 *this section with State and local programs designed to ac-*  
 25 *complish similar goals, including the retention and retrain-*

1 *ing of skilled workers from the manufacturing facilities, in-*  
 2 *cluding by establishing matching grant arrangements.*

3 “(c) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
 4 *authorized to be appropriated to the Secretary such sums*  
 5 *as may be necessary to carry out this section.”.*

6 ***SEC. 133. INCLUSION OF ELECTRIC DRIVE IN ENERGY POL-***  
 7 ***ICY ACT OF 1992.***

8 *Section 508 of the Energy Policy Act of 1992 (42*  
 9 *U.S.C. 13258) is amended—*

10 *(1) by redesignating subsections (a) through (d)*  
 11 *as subsections (b) through (e), respectively;*

12 *(2) by inserting before subsection (b) the fol-*  
 13 *lowing:*

14 “(a) *DEFINITIONS.—In this section:*

15 “(1) *FUEL CELL ELECTRIC VEHICLE.—The term*  
 16 *‘fuel cell electric vehicle’ means an on-road or*  
 17 *nonroad vehicle that uses a fuel cell (as defined in sec-*  
 18 *tion 803 of the Spark M. Matsunaga Hydrogen Act*  
 19 *of 2005 (42 U.S.C. 16152)).*

20 “(2) *HYBRID ELECTRIC VEHICLE.—The term*  
 21 *‘hybrid electric vehicle’ means a new qualified hybrid*  
 22 *motor vehicle (as defined in section 30B(d)(3) of the*  
 23 *Internal Revenue Code of 1986).*

24 “(3) *MEDIUM- OR HEAVY-DUTY ELECTRIC VEHI-*  
 25 *CLE.—The term ‘medium- or heavy-duty electric vehi-*

1        *cle’ means an electric, hybrid electric, or plug-in hy-*  
 2        *brid electric vehicle with a gross vehicle weight of*  
 3        *more than 8,501 pounds.*

4                *“(4) NEIGHBORHOOD ELECTRIC VEHICLE.—The*  
 5        *term ‘neighborhood electric vehicle’ means a 4-wheeled*  
 6        *on-road or nonroad vehicle that—*

7                        *“(A) has a top attainable speed in 1 mile*  
 8                        *of more than 20 mph and not more than 25 mph*  
 9                        *on a paved level surface; and*

10                      *“(B) is propelled by an electric motor and*  
 11                      *on-board, rechargeable energy storage system that*  
 12                      *is rechargeable using an off-board source of elec-*  
 13                      *tricity.*

14                *“(5) PLUG-IN ELECTRIC DRIVE VEHICLE.—The*  
 15        *term ‘plug-in electric drive vehicle’ means a vehicle*  
 16        *that—*

17                      *“(A) draws motive power from a battery*  
 18                      *with a capacity of at least 4 kilowatt-hours;*

19                      *“(B) can be recharged from an external*  
 20                      *source of electricity for motive power; and*

21                      *“(C) is a light-, medium-, or heavy duty*  
 22                      *motor vehicle or nonroad vehicle (as those terms*  
 23                      *are defined in section 216 of the Clean Air Act*  
 24                      *(42 U.S.C. 7550).”;*

1           (3) *in subsection (b) (as redesignated by para-*  
2 *graph (1))—*

3                   (A) *by striking “The Secretary” and insert-*  
4 *ing the following:*

5           “(1) *ALLOCATION.—The Secretary*”; and

6                   (B) *by adding at the end the following:*

7           “(2) *ELECTRIC VEHICLES.—Not later than Jan-*  
8 *uary 31, 2009, the Secretary shall—*

9                   “(A) *allocate credit in an amount to be de-*  
10 *termined by the Secretary for—*

11                           “(i) *acquisition of—*

12                                   “(I) *a hybrid electric vehicle;*

13                                   “(II) *a plug-in electric drive vehi-*  
14 *cle;*

15                                   “(III) *a fuel cell electric vehicle;*

16                                   “(IV) *a neighborhood electric vehi-*  
17 *cle; or*

18                                   “(V) *a medium- or heavy-duty*  
19 *electric vehicle; and*

20                           “(ii) *investment in qualified alter-*  
21 *native fuel infrastructure or nonroad equip-*  
22 *ment, as determined by the Secretary; and*

23                   “(B) *allocate more than 1, but not to exceed*  
24 *5, credits for investment in an emerging tech-*

1            *nology relating to any vehicle described in sub-*  
 2            *paragraph (A) to encourage—*

3                    *“(i) a reduction in petroleum demand;*

4                    *“(ii) technological advancement; and*

5                    *“(iii) a reduction in vehicle emis-*  
 6                    *sions.”;*

7            *(4) in subsection (c) (as redesignated by para-*  
 8            *graph (1)), by striking “subsection (a)” and inserting*  
 9            *“subsection (b)”;* and

10            *(5) by adding at the end the following:*

11            *“(f) AUTHORIZATION OF APPROPRIATIONS.—There are*  
 12            *authorized to be appropriated such sums as are necessary*  
 13            *to carry out this section for each of fiscal years 2008*  
 14            *through 2013.”.*

15    **SEC. 134. LOAN GUARANTEES FOR FUEL-EFFICIENT AUTO-**  
 16                    **MOBILE PARTS MANUFACTURERS.**

17            *(a) IN GENERAL.—Section 712(a)(2) of the Energy*  
 18            *Policy Act of 2005 (42 U.S.C. 16062(a)(2)) (as amended*  
 19            *by section 132) is amended by inserting “and loan guaran-*  
 20            *tees under section 1703” after “grants”.*

21            *(b) CONFORMING AMENDMENT.—Section 1703(b) of*  
 22            *the Energy Policy Act of 2005 (42 U.S.C. 16513(b)) is*  
 23            *amended by striking paragraph (8) and inserting the fol-*  
 24            *lowing:*



1           “(8) *Production facilities for the manufacture of*  
 2           *fuel efficient vehicles or parts of those vehicles, includ-*  
 3           *ing electric drive vehicles and advanced diesel vehi-*  
 4           *cles.*”.

5   **SEC. 135. ADVANCED BATTERY LOAN GUARANTEE PRO-**  
 6                           **GRAM.**

7           (a) *ESTABLISHMENT OF PROGRAM.*—*The Secretary*  
 8           *shall establish a program to provide guarantees of loans by*  
 9           *private institutions for the construction of facilities for the*  
 10           *manufacture of advanced vehicle batteries and battery sys-*  
 11           *tems that are developed and produced in the United States,*  
 12           *including advanced lithium ion batteries and hybrid elec-*  
 13           *trical system and component manufacturers and software*  
 14           *designers.*

15           (b) *REQUIREMENTS.*—*The Secretary may provide a*  
 16           *loan guarantee under subsection (a) to an applicant if—*

17                   (1) *without a loan guarantee, credit is not avail-*  
 18                   *able to the applicant under reasonable terms or condi-*  
 19                   *tions sufficient to finance the construction of a facil-*  
 20                   *ity described in subsection (a);*

21                   (2) *the prospective earning power of the appli-*  
 22                   *cant and the character and value of the security*  
 23                   *pledged provide a reasonable assurance of repayment*  
 24                   *of the loan to be guaranteed in accordance with the*  
 25                   *terms of the loan; and*

1           (3) *the loan bears interest at a rate determined*  
 2           *by the Secretary to be reasonable, taking into account*  
 3           *the current average yield on outstanding obligations*  
 4           *of the United States with remaining periods of matu-*  
 5           *urity comparable to the maturity of the loan.*

6           (c) *CRITERIA.—In selecting recipients of loan guaran-*  
 7           *tees from among applicants, the Secretary shall give pref-*  
 8           *erence to proposals that—*

9                   (1) *meet all applicable Federal and State per-*  
 10           *mitting requirements;*

11                   (2) *are most likely to be successful; and*

12                   (3) *are located in local markets that have the*  
 13           *greatest need for the facility.*

14           (d) *MATURITY.—A loan guaranteed under subsection*  
 15           *(a) shall have a maturity of not more than 20 years.*

16           (e) *TERMS AND CONDITIONS.—The loan agreement for*  
 17           *a loan guaranteed under subsection (a) shall provide that*  
 18           *no provision of the loan agreement may be amended or*  
 19           *waived without the consent of the Secretary.*

20           (f) *ASSURANCE OF REPAYMENT.—The Secretary shall*  
 21           *require that an applicant for a loan guarantee under sub-*  
 22           *section (a) provide an assurance of repayment in the form*  
 23           *of a performance bond, insurance, collateral, or other means*  
 24           *acceptable to the Secretary in an amount equal to not less*  
 25           *than 20 percent of the amount of the loan.*

1       (g) *GUARANTEE FEE.*—*The recipient of a loan guar-*  
 2 *antee under subsection (a) shall pay the Secretary an*  
 3 *amount determined by the Secretary to be sufficient to cover*  
 4 *the administrative costs of the Secretary relating to the loan*  
 5 *guarantee.*

6       (h) *FULL FAITH AND CREDIT.*—*The full faith and*  
 7 *credit of the United States is pledged to the payment of*  
 8 *all guarantees made under this section. Any such guarantee*  
 9 *made by the Secretary shall be conclusive evidence of the*  
 10 *eligibility of the loan for the guarantee with respect to prin-*  
 11 *cipal and interest. The validity of the guarantee shall be*  
 12 *incontestable in the hands of a holder of the guaranteed*  
 13 *loan.*

14       (i) *REPORTS.*—*Until each guaranteed loan under this*  
 15 *section has been repaid in full, the Secretary shall annually*  
 16 *submit to Congress a report on the activities of the Sec-*  
 17 *retary under this section.*

18       (j) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 19 *authorized to be appropriated such sums as are necessary*  
 20 *to carry out this section.*

21       (k) *TERMINATION OF AUTHORITY.*—*The authority of*  
 22 *the Secretary to issue a loan guarantee under subsection*  
 23 *(a) terminates on the date that is 10 years after the date*  
 24 *of enactment of this Act.*

1 **SEC. 136. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**  
 2 **TURING INCENTIVE PROGRAM.**

3 (a) *DEFINITIONS.—In this section:*

4 (1) *ADVANCED TECHNOLOGY VEHICLE.—The*  
 5 *term “advanced technology vehicle” means a light*  
 6 *duty vehicle that meets—*

7 (A) *the Bin 5 Tier II emission standard es-*  
 8 *tablished in regulations issued by the Adminis-*  
 9 *trator of the Environmental Protection Agency*  
 10 *under section 202(i) of the Clean Air Act (42*  
 11 *U.S.C. 7521(i)), or a lower-numbered Bin emis-*  
 12 *sion standard;*

13 (B) *any new emission standard in effect for*  
 14 *fine particulate matter prescribed by the Admin-*  
 15 *istrator under that Act (42 U.S.C. 7401 et seq.);*  
 16 *and*

17 (C) *at least 125 percent of the average base*  
 18 *year combined fuel economy for vehicles with*  
 19 *substantially similar attributes.*

20 (2) *COMBINED FUEL ECONOMY.—The term “com-*  
 21 *bined fuel economy” means—*

22 (A) *the combined city/highway miles per*  
 23 *gallon values, as reported in accordance with sec-*  
 24 *tion 32904 of title 49, United States Code; and*

25 (B) *in the case of an electric drive vehicle*  
 26 *with the ability to recharge from an off-board*

source, the reported mileage, as determined in a manner consistent with the Society of Automotive Engineers recommended practice for that configuration or a similar practice recommended by the Secretary.

(3) *ENGINEERING INTEGRATION COSTS.*—The term “engineering integration costs” includes the cost of engineering tasks relating to—

(A) incorporating qualifying components into the design of advanced technology vehicles; and

(B) designing tooling and equipment and developing manufacturing processes and material suppliers for production facilities that produce qualifying components or advanced technology vehicles.

(4) *QUALIFYING COMPONENTS.*—The term “qualifying components” means components that the Secretary determines to be—

(A) designed for advanced technology vehicles; and

(B) installed for the purpose of meeting the performance requirements of advanced technology vehicles.

1       (b) *ADVANCED VEHICLES MANUFACTURING FACIL-*  
 2 *ITY.—The Secretary shall provide facility funding awards*  
 3 *under this section to automobile manufacturers and compo-*  
 4 *nent suppliers to pay not more than 30 percent of the cost*  
 5 *of—*

6               (1) *reequipping, expanding, or establishing a*  
 7 *manufacturing facility in the United States to*  
 8 *produce—*

9                       (A) *qualifying advanced technology vehicles;*  
 10                      *or*

11                     (B) *qualifying components; and*

12               (2) *engineering integration performed in the*  
 13 *United States of qualifying vehicles and qualifying*  
 14 *components.*

15       (c) *PERIOD OF AVAILABILITY.—An award under sub-*  
 16 *section (b) shall apply to—*

17               (1) *facilities and equipment placed in service be-*  
 18 *fore December 30, 2020; and*

19               (2) *engineering integration costs incurred during*  
 20 *the period beginning on the date of enactment of this*  
 21 *Act and ending on December 30, 2020.*

22       (d) *DIRECT LOAN PROGRAM.—*

23               (1) *IN GENERAL.—Not later than 1 year after*  
 24 *the date of enactment of this Act, and subject to the*  
 25 *availability of appropriated funds, the Secretary shall*

1       *carry out a program to provide a total of not more*  
 2       *than \$25,000,000,000 in loans to eligible individuals*  
 3       *and entities (as determined by the Secretary) for the*  
 4       *costs of activities described in subsection (b).*

5           (2) *APPLICATION.—An applicant for a loan*  
 6       *under this subsection shall submit to the Secretary an*  
 7       *application at such time, in such manner, and con-*  
 8       *taining such information as the Secretary may re-*  
 9       *quire, including a written assurance that—*

10           (A) *all laborers and mechanics employed by*  
 11       *contractors or subcontractors during construc-*  
 12       *tion, alteration, or repair that is financed, in*  
 13       *whole or in part, by a loan under this section*  
 14       *shall be paid wages at rates not less than those*  
 15       *prevailing on similar construction in the local-*  
 16       *ity, as determined by the Secretary of Labor in*  
 17       *accordance with sections 3141–3144, 3146, and*  
 18       *3147 of title 40, United States Code; and*

19           (B) *the Secretary of Labor shall, with re-*  
 20       *spect to the labor standards described in this*  
 21       *paragraph, have the authority and functions set*  
 22       *forth in Reorganization Plan Numbered 14 of*  
 23       *1950 (5 U.S.C. App.) and section 3145 of title*  
 24       *40, United States Code.*

1           (3) *SELECTION OF ELIGIBLE PROJECTS.—The*  
 2           *Secretary shall select eligible projects to receive loans*  
 3           *under this subsection in cases in which, as determined*  
 4           *by the Secretary, the award recipient—*

5                     *(A) is financially viable without the receipt*  
 6                     *of additional Federal funding associated with the*  
 7                     *proposed project;*

8                     *(B) will provide sufficient information to*  
 9                     *the Secretary for the Secretary to ensure that the*  
 10                    *qualified investment is expended efficiently and*  
 11                    *effectively; and*

12                    *(C) has met such other criteria as may be*  
 13                    *established and published by the Secretary.*

14           (4) *RATES, TERMS, AND REPAYMENT OF*  
 15           *LOANS.—A loan provided under this subsection—*

16                    *(A) shall have an interest rate that, as of*  
 17                    *the date on which the loan is made, is equal to*  
 18                    *the cost of funds to the Department of the Treas-*  
 19                    *ury for obligations of comparable maturity;*

20                    *(B) shall have a term equal to the lesser*  
 21                    *of—*

22                            *(i) the projected life, in years, of the el-*  
 23                            *igible project to be carried out using funds*  
 24                            *from the loan, as determined by the Sec-*  
 25                            *retary; and*



1                   (ii) 25 years;

2                   (C) may be subject to a deferral in repay-  
 3                   ment for not more than 5 years after the date on  
 4                   which the eligible project carried out using funds  
 5                   from the loan first begins operations, as deter-  
 6                   mined by the Secretary; and

7                   (D) shall be made by the Federal Financing  
 8                   Bank.

9           (e) *IMPROVEMENT.*—The Secretary shall issue regula-  
 10           tions that require that, in order for an automobile manufac-  
 11           turer to be eligible for an award or loan under this section  
 12           during a particular year, the adjusted average fuel economy  
 13           of the manufacturer for light duty vehicles produced by the  
 14           manufacturer during the most recent year for which data  
 15           are available shall be not less than the average fuel economy  
 16           for all light duty vehicles of the manufacturer for model  
 17           year 2005. In order to determine fuel economy baselines for  
 18           eligibility of a new manufacturer or a manufacturer that  
 19           has not produced previously produced equivalent vehicles,  
 20           the Secretary may substitute industry averages.

21           (f) *FEES.*—Administrative costs shall be no more than  
 22           \$100,000 or 10 basis point of the loan.

23           (g) *PRIORITY.*—The Secretary shall, in making  
 24           awards or loans to those manufacturers that have existing  
 25           facilities, give priority to those facilities that are oldest or

1 *have been in existence for at least 20 years. Such facilities*  
 2 *can currently be sitting idle.*

3 *(h) SET ASIDE FOR SMALL AUTOMOBILE MANUFAC-*  
 4 *TURERS AND COMPONENT SUPPLIERS.—*

5 *(1) DEFINITION OF COVERED FIRM.—In this sub-*  
 6 *section, the term “covered firm” means a firm that—*

7 *(A) employs less than 500 individuals; and*

8 *(B) manufactures automobiles or compo-*  
 9 *nents of automobiles.*

10 *(2) SET ASIDE.—Of the amount of funds that*  
 11 *are used to provide awards for each fiscal year under*  
 12 *subsection (b), the Secretary shall use not less than 10*  
 13 *percent to provide awards to covered firms or con-*  
 14 *sortia led by a covered firm.*

15 *(i) AUTHORIZATION OF APPROPRIATIONS.—There are*  
 16 *authorized to be appropriated such sums as are necessary*  
 17 *to carry out this section for each of fiscal years 2008*  
 18 *through 2012.*

## 19 ***Subtitle C—Federal Vehicle Fleets***

### 20 ***SEC. 141. FEDERAL VEHICLE FLEETS.***

21 *Section 303 of the Energy Policy Act of 1992 (42*  
 22 *U.S.C. 13212) is amended—*

23 *(1) by redesignating subsection (f) as subsection*  
 24 *(g); and*

(2) by inserting after subsection (e) the following new subsection:

“(f) *VEHICLE EMISSION REQUIREMENTS.*—

“(1) *DEFINITIONS.*—In this subsection:

“(A) *FEDERAL AGENCY.*—The term ‘Federal agency’ does not include any office of the legislative branch, except that it does include the House of Representatives with respect to an acquisition described in paragraph (2)(C).

“(B) *MEDIUM DUTY PASSENGER VEHICLE.*—The term ‘medium duty passenger vehicle’ has the meaning given that term section 523.2 of title 49 of the Code of Federal Regulations, as in effect on the date of enactment of this paragraph.

“(C) *MEMBER’S REPRESENTATIONAL ALLOWANCE.*—The term ‘Member’s Representational Allowance’ means the allowance described in section 101(a) of the House of Representatives Administrative Reform Technical Corrections Act (2 U.S.C. 57b(a)).

“(2) *PROHIBITION.*—

“(A) *IN GENERAL.*—Except as provided in subparagraph (B), no Federal agency shall acquire a light duty motor vehicle or medium duty

1        *passenger vehicle that is not a low greenhouse*  
2        *gas emitting vehicle.*

3                “(B) *EXCEPTION.*—*The prohibition in sub-*  
4        *paragraph (A) shall not apply to acquisition of*  
5        *a vehicle if the head of the agency certifies in*  
6        *writing, in a separate certification for each indi-*  
7        *vidual vehicle purchased, either—*

8                “(i) *that no low greenhouse gas emit-*  
9        *ting vehicle is available to meet the func-*  
10       *tional needs of the agency and details in*  
11       *writing the functional needs that could not*  
12       *be met with a low greenhouse gas emitting*  
13       *vehicle; or*

14               “(ii) *that the agency has taken specific*  
15       *alternative more cost-effective measures to*  
16       *reduce petroleum consumption that—*

17               “(I) *have reduced a measured and*  
18       *verified quantity of greenhouse gas*  
19       *emissions equal to or greater than the*  
20       *quantity of greenhouse gas reductions*  
21       *that would have been achieved through*  
22       *acquisition of a low greenhouse gas*  
23       *emitting vehicle over the lifetime of the*  
24       *vehicle; or*

1                   “(II) will reduce each year a  
 2                   measured and verified quantity of  
 3                   greenhouse gas emissions equal to or  
 4                   greater than the quantity of greenhouse  
 5                   gas reductions that would have been  
 6                   achieved each year through acquisition  
 7                   of a low greenhouse gas emitting vehi-  
 8                   cle.

9                   “(C) SPECIAL RULE FOR VEHICLES PRO-  
 10                  VIDED BY FUNDS CONTAINED IN MEMBERS’ REP-  
 11                  RESENTATIONAL ALLOWANCE.—This paragraph  
 12                  shall apply to the acquisition of a light duty  
 13                  motor vehicle or medium duty passenger vehicle  
 14                  using any portion of a Member’s Representa-  
 15                  tional Allowance, including an acquisition under  
 16                  a long-term lease.

17                  “(3) GUIDANCE.—

18                  “(A) IN GENERAL.—Each year, the Admin-  
 19                  istrator of the Environmental Protection Agency  
 20                  shall issue guidance identifying the makes and  
 21                  model numbers of vehicles that are low green-  
 22                  house gas emitting vehicles.

23                  “(B) CONSIDERATION.—In identifying vehi-  
 24                  cles under subparagraph (A), the Administrator  
 25                  shall take into account the most stringent stand-

ards for vehicle greenhouse gas emissions applicable to and enforceable against motor vehicle manufacturers for vehicles sold anywhere in the United States.

“(C) *REQUIREMENT.*—The Administrator shall not identify any vehicle as a low greenhouse gas emitting vehicle if the vehicle emits greenhouse gases at a higher rate than such standards allow for the manufacturer’s fleet average grams per mile of carbon dioxide-equivalent emissions for that class of vehicle, taking into account any emissions allowances and adjustment factors such standards provide.”.

**SEC. 142. FEDERAL FLEET CONSERVATION REQUIREMENTS.**

*Part J of title III of the Energy Policy and Conservation Act (42 U.S.C. 6374 et seq.) is amended by adding at the end the following:*

**“SEC. 400FF. FEDERAL FLEET CONSERVATION REQUIREMENTS.**

**“(a) MANDATORY REDUCTION IN PETROLEUM CONSUMPTION.—**

**“(1) IN GENERAL.**—Not later than 18 months after the date of enactment of this section, the Secretary shall issue regulations for Federal fleets subject to section 400AA to require that, beginning in fiscal

1     *year 2010, each Federal agency shall reduce petro-*  
 2     *leum consumption and increase alternative fuel con-*  
 3     *sumption each year by an amount necessary to meet*  
 4     *the goals described in paragraph (2).*

5             “(2) *GOALS.—The goals of the requirements*  
 6     *under paragraph (1) are that not later than October*  
 7     *1, 2015, and for each year thereafter, each Federal*  
 8     *agency shall achieve at least a 20 percent reduction*  
 9     *in annual petroleum consumption and a 10 percent*  
 10    *increase in annual alternative fuel consumption, as*  
 11    *calculated from the baseline established by the Sec-*  
 12    *retary for fiscal year 2005.*

13            “(3) *MILESTONES.—The Secretary shall include*  
 14    *in the regulations described in paragraph (1)—*

15                    “(A) *interim numeric milestones to assess*  
 16                    *annual agency progress towards accomplishing*  
 17                    *the goals described in that paragraph; and*

18                    “(B) *a requirement that agencies annually*  
 19                    *report on progress towards meeting each of the*  
 20                    *milestones and the 2015 goals.*

21            “(b) *PLAN.—*

22                    “(1) *REQUIREMENT.—*

23                            “(A) *IN GENERAL.—The regulations under*  
 24                            *subsection (a) shall require each Federal agency*  
 25                            *to develop a plan, and implement the measures*

1       *specified in the plan by dates specified in the*  
 2       *plan, to meet the required petroleum reduction*  
 3       *levels and the alternative fuel consumption in-*  
 4       *creases, including the milestones specified by the*  
 5       *Secretary.*

6               “(B) *INCLUSIONS.*—*The plan shall—*

7                       “(i) *identify the specific measures the*  
 8                       *agency will use to meet the requirements of*  
 9                       *subsection (a)(2); and*

10                      “(ii) *quantify the reductions in petro-*  
 11                      *leum consumption or increases in alter-*  
 12                      *native fuel consumption projected to be*  
 13                      *achieved by each measure each year.*

14               “(2) *MEASURES.*—*The plan may allow an agen-*  
 15       *cy to meet the required petroleum reduction level*  
 16       *through—*

17                      “(A) *the use of alternative fuels;*

18                      “(B) *the acquisition of vehicles with higher*  
 19                      *fuel economy, including hybrid vehicles, neigh-*  
 20                      *borhood electric vehicles, electric vehicles, and*  
 21                      *plug-in hybrid vehicles if the vehicles are com-*  
 22                      *mercially available;*

23                      “(C) *the substitution of cars for light trucks;*

24                      “(D) *an increase in vehicle load factors;*

25                      “(E) *a decrease in vehicle miles traveled;*



“(F) a decrease in fleet size; and

“(G) other measures.”.

**TITLE II—ENERGY SECURITY**  
**THROUGH INCREASED PRO-**  
**DUCTION OF BIOFUELS**  
**Subtitle A—Renewable Fuel**  
**Standard**

**SEC. 201. DEFINITIONS.**

Section 211(o)(1) of the Clean Air Act (42 U.S.C. 7545(o)) is amended to read as follows:

“(1) **DEFINITIONS.**—In this section:

“(A) **ADDITIONAL RENEWABLE FUEL.**—The term ‘additional renewable fuel’ means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in home heating oil or jet fuel.

“(B) **ADVANCED BIOFUEL.**—

“(i) **IN GENERAL.**—The term ‘advanced biofuel’ means renewable fuel, other than ethanol derived from corn starch, that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

1 “(ii) *INCLUSIONS.—The types of fuels*  
 2 *eligible for consideration as ‘advanced*  
 3 *biofuel’ may include any of the following:*

4 “(I) *Ethanol derived from cel-*  
 5 *lulose, hemicellulose, or lignin.*

6 “(II) *Ethanol derived from sugar*  
 7 *or starch (other than corn starch).*

8 “(III) *Ethanol derived from waste*  
 9 *material, including crop residue, other*  
 10 *vegetative waste material, animal*  
 11 *waste, and food waste and yard waste.*

12 “(IV) *Biomass-based diesel.*

13 “(V) *Biogas (including landfill*  
 14 *gas and sewage waste treatment gas)*  
 15 *produced through the conversion of or-*  
 16 *ganic matter from renewable biomass.*

17 “(VI) *Butanol or other alcohols*  
 18 *produced through the conversion of or-*  
 19 *ganic matter from renewable biomass.*

20 “(VII) *Other fuel derived from cel-*  
 21 *lulosic biomass.*

22 “(C) *BASELINE LIFECYCLE GREENHOUSE*  
 23 *GAS EMISSIONS.—The term ‘baseline lifecycle*  
 24 *greenhouse gas emissions’ means the average*  
 25 *lifecycle greenhouse gas emissions, as determined*

1        *by the Administrator, after notice and oppor-*  
 2        *tunity for comment, for gasoline or diesel*  
 3        *(whichever is being replaced by the renewable*  
 4        *fuel) sold or distributed as transportation fuel in*  
 5        *2005.*

6                “(D) *BIOMASS-BASED DIESEL.*—*The term*  
 7        *‘biomass-based diesel’ means renewable fuel that*  
 8        *is biodiesel as defined in section 312(f) of the*  
 9        *Energy Policy Act of 1992 (42 U.S.C. 13220(f))*  
 10        *and that has lifecycle greenhouse gas emissions,*  
 11        *as determined by the Administrator, after notice*  
 12        *and opportunity for comment, that are at least*  
 13        *50 percent less than the baseline lifecycle green-*  
 14        *house gas emissions. Notwithstanding the pre-*  
 15        *ceding sentence, renewable fuel derived from co-*  
 16        *processing biomass with a petroleum feedstock*  
 17        *shall be advanced biofuel if it meets the require-*  
 18        *ments of subparagraph (B), but is not biomass-*  
 19        *based diesel.*

20                “(E) *CELLULOSIC BIOFUEL.*—*The term ‘cel-*  
 21        *lulosic biofuel’ means renewable fuel derived*  
 22        *from any cellulose, hemicellulose, or lignin that*  
 23        *is derived from renewable biomass and that has*  
 24        *lifecycle greenhouse gas emissions, as determined*  
 25        *by the Administrator, that are at least 60 per-*

cent less than the baseline lifecycle greenhouse gas emissions.

“(F) CONVENTIONAL BIOFUEL.—The term ‘conventional biofuel’ means renewable fuel that is ethanol derived from corn starch.

“(G) GREENHOUSE GAS.—The term ‘greenhouse gas’ means carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, sulfur hexafluoride. The Administrator may include any other anthropogenically-emitted gas that is determined by the Administrator, after notice and comment, to contribute to global warming.

“(H) LIFECYCLE GREENHOUSE GAS EMISSIONS.—The term ‘lifecycle greenhouse gas emissions’ means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass

1           *values for all greenhouse gases are adjusted to ac-*  
2           *count for their relative global warming potential.*

3           “(I) *RENEWABLE BIOMASS.*—*The term ‘re-*  
4           *newable biomass’ means each of the following:*

5                   “(i) *Planted crops and crop residue*  
6                   *harvested from agricultural land cleared or*  
7                   *cultivated at any time prior to the enact-*  
8                   *ment of this sentence that is either actively*  
9                   *managed or fallow, and nonforested.*

10                   “(ii) *Planted trees and tree residue*  
11                   *from actively managed tree plantations on*  
12                   *non-federal land cleared at any time prior*  
13                   *to enactment of this sentence, including*  
14                   *land belonging to an Indian tribe or an In-*  
15                   *Indian individual, that is held in trust by the*  
16                   *United States or subject to a restriction*  
17                   *against alienation imposed by the United*  
18                   *States.*

19                   “(iii) *Animal waste material and ani-*  
20                   *mal byproducts.*

21                   “(iv) *Slash and pre-commercial*  
22                   *thinnings that are from non-federal*  
23                   *forestlands, including forestlands belonging*  
24                   *to an Indian tribe or an Indian individual,*  
25                   *that are held in trust by the United States*

1           or subject to a restriction against alienation  
 2           imposed by the United States, but not for-  
 3           ests or forestlands that are ecological com-  
 4           munities with a global or State ranking of  
 5           critically imperiled, imperiled, or rare pur-  
 6           suant to a State Natural Heritage Program,  
 7           old growth forest, or late successional forest.

8           “(v) Biomass obtained from the imme-  
 9           diate vicinity of buildings and other areas  
 10          regularly occupied by people, or of public  
 11          infrastructure, at risk from wildfire.

12          “(vi) Algae.

13          “(vii) Separated yard waste or food  
 14          waste, including recycled cooking and trap  
 15          grease.

16          “(J) RENEWABLE FUEL.—The term ‘renew-  
 17          able fuel’ means fuel that is produced from re-  
 18          newable biomass and that is used to replace or  
 19          reduce the quantity of fossil fuel present in a  
 20          transportation fuel.

21          “(K) SMALL REFINERY.—The term ‘small  
 22          refinery’ means a refinery for which the average  
 23          aggregate daily crude oil throughput for a cal-  
 24          endar year (as determined by dividing the aggre-  
 25          gate throughput for the calendar year by the

1           *number of days in the calendar year) does not*  
 2           *exceed 75,000 barrels.*

3           “(L) *TRANSPORTATION FUEL.*—*The term*  
 4           *‘transportation fuel’ means fuel for use in motor*  
 5           *vehicles, motor vehicle engines, nonroad vehicles,*  
 6           *or nonroad engines (except for ocean-going ves-*  
 7           *sels).’.*”

8   **SEC. 202. RENEWABLE FUEL STANDARD.**

9           (a) *RENEWABLE FUEL PROGRAM.*—*Paragraph (2) of*  
 10          *section 211(o) (42 U.S.C. 7545(o)(2)) of the Clean Air Act*  
 11          *is amended as follows:*

12           (1) *REGULATIONS.*—*Clause (i) of subparagraph*  
 13          *(A) is amended by adding the following at the end*  
 14          *thereof: “Not later than 1 year after the date of enact-*  
 15          *ment of this sentence, the Administrator shall revise*  
 16          *the regulations under this paragraph to ensure that*  
 17          *transportation fuel sold or introduced into commerce*  
 18          *in the United States (except in noncontiguous States*  
 19          *or territories), on an annual average basis, contains*  
 20          *at least the applicable volume of renewable fuel, ad-*  
 21          *vanced biofuel, cellulosic biofuel, and biomass-based*  
 22          *diesel, determined in accordance with subparagraph*  
 23          *(B) and, in the case of any such renewable fuel pro-*  
 24          *duced from new facilities that commence construction*  
 25          *after the date of enactment of this sentence, achieves*

1        *at least a 20 percent reduction in lifecycle greenhouse*  
 2        *gas emissions compared to baseline lifecycle green-*  
 3        *house gas emissions.”*

4                (2) *APPLICABLE VOLUMES OF RENEWABLE*  
 5        *FUEL.—Subparagraph (B) is amended to read as fol-*  
 6        *lows:*

7                        “(B) *APPLICABLE VOLUMES.—*

8                                “(i) *CALENDAR YEARS AFTER 2005.—*

9                                        “(I) *RENEWABLE FUEL.—For the*  
 10                                *purpose of subparagraph (A), the ap-*  
 11                                *plicable volume of renewable fuel for*  
 12                                *the calendar years 2006 through 2022*  
 13                                *shall be determined in accordance with*  
 14                                *the following table:*

<b>“Calendar year:</b>	<b><i>Applicable volume of renewable fuel (in billions of gallons):</i></b>
2006 .....	4.0
2007 .....	4.7
2008 .....	9.0
2009 .....	11.1
2010 .....	12.95
2011 .....	13.95
2012 .....	15.2
2013 .....	16.55
2014 .....	18.15
2015 .....	20.5
2016 .....	22.25
2017 .....	24.0
2018 .....	26.0
2019 .....	28.0
2020 .....	30.0
2021 .....	33.0
2022 .....	36.0

15                                “(II) *ADVANCED BIOFUEL.—For*  
 16                                *the purpose of subparagraph (A), of the*



1                    *volume of renewable fuel required*  
 2                    *under subclause (I), the applicable vol-*  
 3                    *ume of advanced biofuel for the cal-*  
 4                    *endar years 2009 through 2022 shall be*  
 5                    *determined in accordance with the fol-*  
 6                    *lowing table:*

<b>“Calendar year:</b>	<b>Applicable volume of advanced biofuel (in billions of gallons):</b>
2009 .....	0.6
2010 .....	0.95
2011 .....	1.35
2012 .....	2.0
2013 .....	2.75
2014 .....	3.75
2015 .....	5.5
2016 .....	7.25
2017 .....	9.0
2018 .....	11.0
2019 .....	13.0
2020 .....	15.0
2021 .....	18.0
2022 .....	21.0

7                    *“(III) CELLULOSIC BIOFUEL.—*  
 8                    *For the purpose of subparagraph (A),*  
 9                    *of the volume of advanced biofuel re-*  
 10                   *quired under subclause (II), the appli-*  
 11                   *cable volume of cellulosic biofuel for the*  
 12                   *calendar years 2010 through 2022 shall*  
 13                   *be determined in accordance with the*  
 14                   *following table:*

<b>“Calendar year:</b>	<b>Applicable volume of cellulosic biofuel (in billions of gallons):</b>
2010 .....	0.1
2011 .....	0.25
2012 .....	0.5
2013 .....	1.0
2014 .....	1.75

<b>“Calendar year:</b>	<b>Applicable volume of cellulosic biofuel (in billions of gallons):</b>
2015 .....	3.0
2016 .....	4.25
2017 .....	5.5
2018 .....	7.0
2019 .....	8.5
2020 .....	10.5
2021 .....	13.5
2022 .....	16.0

1 “(IV) *BIOMASS-BASED DIESEL.*—

2 *For the purpose of subparagraph (A),*  
3 *of the volume of advanced biofuel re-*  
4 *quired under subclause (II), the appli-*  
5 *cable volume of biomass-based diesel for*  
6 *the calendar years 2009 through 2012*  
7 *shall be determined in accordance with*  
8 *the following table:*

<b>“Calendar year:</b>	<b>Applicable volume of biomass-based diesel (in billions of gallons):</b>
2009 .....	0.5
2010 .....	0.65
2011 .....	0.80
2012 .....	1.0

9 “(ii) *OTHER CALENDAR YEARS.*—*For*  
10 *the purposes of subparagraph (A), the ap-*  
11 *plicable volumes of each fuel specified in the*  
12 *tables in clause (i) for calendar years after*  
13 *the calendar years specified in the tables*  
14 *shall be determined by the Administrator,*  
15 *in coordination with the Secretary of En-*  
16 *ergy and the Secretary of Agriculture, based*  
17 *on a review of the implementation of the*

1                    *program during calendar years specified in*  
2                    *the tables, and an analysis of—*

3                    *“(I) the impact of the production*  
4                    *and use of renewable fuels on the envi-*  
5                    *ronment, including on air quality, cli-*  
6                    *mate change, conversion of wet lands,*  
7                    *eco-systems, wildlife habitat, water*  
8                    *quality, and water supply;*

9                    *“(II) the impact of renewable fuels*  
10                   *on the energy security of the United*  
11                   *States;*

12                   *“(III) the expected annual rate of*  
13                   *future commercial production of re-*  
14                   *newable fuels, including advanced*  
15                   *biofuels in each category (cellulosic*  
16                   *biofuel and biomass-based diesel);*

17                   *“(IV) the impact of renewable*  
18                   *fuels on the infrastructure of the*  
19                   *United States, including deliverability*  
20                   *of materials, goods, and products other*  
21                   *than renewable fuel, and the suffi-*  
22                   *ciency of infrastructure to deliver and*  
23                   *use renewable fuel;*

24                   *“(V) the impact of the use of re-*  
25                   *newable fuels on the cost to consumers*

1                   of transportation fuel and on the cost  
2                   to transport goods; and

3                   “(VI) the impact of the use of re-  
4                   newable fuels on other factors, includ-  
5                   ing job creation, the price and supply  
6                   of agricultural commodities, rural eco-  
7                   nomic development, and food prices.

8                   *The Administrator shall promulgate rules*  
9                   *establishing the applicable volumes under*  
10                  *this clause no later than 14 months before*  
11                  *the first year for which such applicable vol-*  
12                  *ume will apply.*

13                  “(iii) *APPLICABLE VOLUME OF AD-*  
14                  *VANCED BIOFUEL.—For the purpose of mak-*  
15                  *ing the determinations in clause (ii), for*  
16                  *each calendar year, the applicable volume of*  
17                  *advanced biofuel shall be at least the same*  
18                  *percentage of the applicable volume of re-*  
19                  *newable fuel as in calendar year 2022.*

20                  “(iv) *APPLICABLE VOLUME OF CEL-*  
21                  *LULOSIC BIOFUEL.—For the purpose of*  
22                  *making the determinations in clause (ii),*  
23                  *for each calendar year, the applicable vol-*  
24                  *ume of cellulosic biofuel established by the*  
25                  *Administrator shall be based on the as-*

1                    *sumption that the Administrator will not*  
 2                    *need to issue a waiver for such years under*  
 3                    *paragraph (7)(D).*

4                    “(v) *MINIMUM APPLICABLE VOLUME OF*  
 5                    *BIOMASS-BASED DIESEL.—For the purpose*  
 6                    *of making the determinations in clause (ii),*  
 7                    *the applicable volume of biomass-based die-*  
 8                    *sel shall not be less than the applicable vol-*  
 9                    *ume listed in clause (i)(IV) for calendar*  
 10                   *year 2012.”.*

11                (b) *APPLICABLE PERCENTAGES.—Paragraph (3) of*  
 12                *section 211(o) of the Clean Air Act (42 U.S.C. 7545(o)(3))*  
 13                *is amended as follows:*

14                    (1) *In subparagraph (A), by striking “2011”*  
 15                    *and inserting “2021”.*

16                    (2) *In subparagraph (A), by striking “gasoline”*  
 17                    *and inserting “transportation fuel, biomass-based die-*  
 18                    *sel, and cellulosic biofuel”.*

19                    (3) *In subparagraph (B), by striking “2012”*  
 20                    *and inserting “2021” in clause (i).*

21                    (4) *In subparagraph (B), by striking “gasoline”*  
 22                    *and inserting “transportation fuel” in clause (ii)(II).*

23                (c) *MODIFICATION OF GREENHOUSE GAS PERCENT-*  
 24                *AGES.—Paragraph (4) of section 211(o) of the Clean Air*  
 25                *Act (42 U.S.C. 7545(o)(4)) is amended to read as follows:*

1           “(4) *MODIFICATION OF GREENHOUSE GAS RE-*  
 2           *DUCTION PERCENTAGES.*—

3           “(A) *IN GENERAL.*—*The Administrator*  
 4           *may, in the regulations under the last sentence*  
 5           *of paragraph (2)(A)(i), adjust the 20 percent, 50*  
 6           *percent, and 60 percent reductions in lifecycle*  
 7           *greenhouse gas emissions specified in paragraphs*  
 8           *(2)(A)(i)(relating to renewable fuel), (1)(D) (re-*  
 9           *lating to biomass-based diesel), (1)(B)(i)(relating*  
 10           *to advanced biofuel), and (1)(E) (relating to cel-*  
 11           *lulosic biofuel) to a lower percentage. For the 50*  
 12           *and 60 percent reductions, the Administrator*  
 13           *may make such an adjustment only if he deter-*  
 14           *mines that generally such reduction is not com-*  
 15           *mercially feasible for fuels made using a variety*  
 16           *of feedstocks, technologies, and processes to meet*  
 17           *the applicable reduction.*

18           “(B) *AMOUNT OF ADJUSTMENT.*—*In pro-*  
 19           *mulgating regulations under this paragraph, the*  
 20           *specified 50 percent reduction in greenhouse gas*  
 21           *emissions from advanced biofuel and in biomass-*  
 22           *based diesel may not be reduced below 40 per-*  
 23           *cent. The specified 20 percent reduction in green-*  
 24           *house gas emissions from renewable fuel may not*  
 25           *be reduced below 10 percent, and the specified 60*

1        *percent reduction in greenhouse gas emissions*  
2        *from cellulosic biofuel may not be reduced below*  
3        *50 percent.*

4                “(C) *ADJUSTED REDUCTION LEVELS.*—An  
5        *adjustment under this paragraph to a percent*  
6        *less than the specified 20 percent greenhouse gas*  
7        *reduction for renewable fuel shall be the min-*  
8        *imum possible adjustment, and the adjusted*  
9        *greenhouse gas reduction shall be established by*  
10       *the Administrator at the maximum achievable*  
11       *level, taking cost in consideration, for natural*  
12       *gas fired corn-based ethanol plants, allowing for*  
13       *the use of a variety of technologies and processes.*  
14       *An adjustment in the 50 or 60 percent green-*  
15       *house gas levels shall be the minimum possible*  
16       *adjustment for the fuel or fuels concerned, and*  
17       *the adjusted greenhouse gas reduction shall be es-*  
18       *tablished at the maximum achievable level, tak-*  
19       *ing cost in consideration, allowing for the use of*  
20       *a variety of feedstocks, technologies, and proc-*  
21       *esses.*

22                “(D) *5-YEAR REVIEW.*—Whenever the Ad-  
23        *ministrator makes any adjustment under this*  
24        *paragraph, not later than 5 years thereafter he*  
25        *shall review and revise (based upon the same cri-*

1        *teria and standards as required for the initial*  
 2        *adjustment) the regulations establishing the ad-*  
 3        *justed level.*

4                “(E) *SUBSEQUENT ADJUSTMENTS.*—After  
 5        *the Administrator has promulgated a final rule*  
 6        *under the last sentence of paragraph (2)(A)(i)*  
 7        *with respect to the method of determining*  
 8        *lifecycle greenhouse gas emissions, except as pro-*  
 9        *vided in subparagraph (D), the Administrator*  
 10        *may not adjust the percent greenhouse gas reduc-*  
 11        *tion levels unless he determines that there has*  
 12        *been a significant change in the analytical meth-*  
 13        *odology used for determining the lifecycle green-*  
 14        *house gas emissions. If he makes such determina-*  
 15        *tion, he may adjust the 20, 50, or 60 percent re-*  
 16        *duction levels through rulemaking using the cri-*  
 17        *teria and standards set forth in this paragraph.*

18                “(F) *LIMIT ON UPWARD ADJUSTMENTS.*—If,  
 19        *under subparagraph (D) or (E), the Adminis-*  
 20        *trator revises a percent level adjusted as provided*  
 21        *in subparagraph (A), (B), and (C) to a higher*  
 22        *percent, such higher percent may not exceed the*  
 23        *applicable percent specified in paragraph*  
 24        *(2)(A)(i), (1)(D), (1)(B)(i), or (1)(E).*



1                   “(G) *APPLICABILITY OF ADJUSTMENTS.—If*  
2                   *the Administrator adjusts, or revises, a percent*  
3                   *level referred to in this paragraph or makes a*  
4                   *change in the analytical methodology used for*  
5                   *determining the lifecycle greenhouse gas emis-*  
6                   *sions, such adjustment, revision, or change (or*  
7                   *any combination thereof) shall only apply to re-*  
8                   *newable fuel from new facilities that commence*  
9                   *construction after the effective date of such ad-*  
10                  *justment, revision, or change.”.*

11                  (d) *CREDITS FOR ADDITIONAL RENEWABLE FUEL.—*  
12                  *Paragraph (5) of section 211(o) of the Clean Air Act (42*  
13                  *U.S.C. 7545(o)(5)) is amended by adding the following new*  
14                  *subparagraph at the end thereof:*

15                         “(E) *CREDITS FOR ADDITIONAL RENEW-*  
16                         *ABLE FUEL.—The Administrator may issue reg-*  
17                         *ulations providing (i) for the generation of an*  
18                         *appropriate amount of credits by any person*  
19                         *that refines, blends, or imports additional renew-*  
20                         *able fuels specified by the Administrator and (ii)*  
21                         *for the use of such credits by the generator, or the*  
22                         *transfer of all or a portion of the credits to an-*  
23                         *other person, for the purpose of complying with*  
24                         *paragraph (2).”.*

25                  (e) *WAIVERS.—*

1           (1) *IN GENERAL.*—Paragraph (7)(A) of section  
 2           211(o) of the Clean Air Act (42 U.S.C. 7545(o)(7)(A))  
 3           is amended by inserting “, by any person subject to  
 4           the requirements of this subsection, or by the Admin-  
 5           istrator on his own motion” after “one or more  
 6           States” in subparagraph (A) and by striking out  
 7           “State” in subparagraph (B).

8           (2) *CELLULOSIC BIOFUEL.*—Paragraph (7) of  
 9           section 211(o) of the Clean Air Act (42 U.S.C.  
 10          7545(o)(7)) is amended by adding the following at the  
 11          end thereof:

12                   “(D) *CELLULOSIC BIOFUEL.*—(i) For any  
 13                   calendar year for which the projected volume of  
 14                   cellulosic biofuel production is less than the min-  
 15                   imum applicable volume established under para-  
 16                   graph (2)(B), as determined by the Adminis-  
 17                   trator based on the estimate provided under  
 18                   paragraph (3)(A), not later than November 30 of  
 19                   the preceding calendar year, the Administrator  
 20                   shall reduce the applicable volume of cellulosic  
 21                   biofuel required under paragraph (2)(B) to the  
 22                   projected volume available during that calendar  
 23                   year. For any calendar year in which the Ad-  
 24                   ministrator makes such a reduction, the Admin-  
 25                   istrator may also reduce the applicable volume of

1        *renewable fuel and advanced biofuels require-*  
2        *ment established under paragraph (2)(B) by the*  
3        *same or a lesser volume.*

4                *“(ii) Whenever the Administrator reduces*  
5        *the minimum cellulosic biofuel volume under this*  
6        *subparagraph, the Administrator shall make*  
7        *available for sale cellulosic biofuel credits at the*  
8        *higher of \$0.25 per gallon or the amount by*  
9        *which \$3.00 per gallon exceeds the average*  
10       *wholesale price of a gallon of gasoline in the*  
11       *United States. Such amounts shall be adjusted*  
12       *for inflation by the Administrator for years after*  
13       *2008.*

14               *“(iii) 18 months after date of enactment of*  
15       *this subparagraph, the Administrator shall pro-*  
16       *mulgate regulations to govern the issuance of*  
17       *credits under this subparagraph. The regulations*  
18       *shall set forth the method for determining the*  
19       *exact price of credits in the event of a waiver.*  
20       *The price of such credits shall not be changed*  
21       *more frequently than once each quarter. These*  
22       *regulations shall include such provisions, includ-*  
23       *ing limiting the credits’ uses and useful life, as*  
24       *the Administrator deems appropriate to assist*  
25       *market liquidity and transparency, to provide*

appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection. The regulations shall limit the number of cellulosic biofuel credits for any calendar year to the minimum applicable volume (as reduced under this subparagraph) of cellulosic biofuel for that year.”.

(3) *BIOMASS-BASED DIESEL*.—Paragraph (7) of section 211(o) of the Clean Air Act (42 U.S.C. 7545(o)(7)) is amended by adding the following at the end thereof:

“(E) *BIOMASS-BASED DIESEL*.—

“(i) *MARKET EVALUATION*.—The Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall periodically evaluate the impact of the biomass-based diesel requirements established under this paragraph on the price of diesel fuel.

“(ii) *WAIVER*.—If the Administrator determines that there is a significant renew-

1            *able feedstock disruption or other market*  
2            *circumstances that would make the price of*  
3            *biomass-based diesel fuel increase signifi-*  
4            *cantly, the Administrator, in consultation*  
5            *with the Secretary of Energy and the Sec-*  
6            *retary of Agriculture, shall issue an order to*  
7            *reduce, for up to a 60-day period, the quan-*  
8            *tity of biomass-based diesel required under*  
9            *subparagraph (A) by an appropriate quan-*  
10           *tity that does not exceed 15 percent of the*  
11           *applicable annual requirement for biomass-*  
12           *based diesel. For any calendar year in*  
13           *which the Administrator makes a reduction*  
14           *under this subparagraph, the Administrator*  
15           *may also reduce the applicable volume of re-*  
16           *newable fuel and advanced biofuels require-*  
17           *ment established under paragraph (2)(B) by*  
18           *the same or a lesser volume.*

19           “(iii) *EXTENSIONS.*—*If the Adminis-*  
20           *trator determines that the feedstock disrup-*  
21           *tion or circumstances described in clause*  
22           *(ii) is continuing beyond the 60-day period*  
23           *described in clause (ii) or this clause, the*  
24           *Administrator, in consultation with the*  
25           *Secretary of Energy and the Secretary of*

*Agriculture, may issue an order to reduce, for up to an additional 60-day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed an additional 15 percent of the applicable annual requirement for biomass-based diesel.*

*“(F) MODIFICATION OF APPLICABLE VOLUMES.—For any of the tables in paragraph (2)(B), if the Administrator waives—*

*“(i) at least 20 percent of the applicable volume requirement set forth in any such table for 2 consecutive years; or*

*“(ii) at least 50 percent of such volume requirement for a single year,*

*the Administrator shall promulgate a rule (within one year after issuing such waiver) that modifies the applicable volumes set forth in the table concerned for all years following the final year to which the waiver applies, except that no such modification in applicable volumes shall be made for any year before 2016. In promulgating such a rule, the Administrator shall comply with the processes, criteria, and standards set forth in paragraph (2)(B)(ii).”.*

1 **SEC. 203. STUDY OF IMPACT OF RENEWABLE FUEL STAND-**  
 2 **ARD.**

3 (a) *IN GENERAL.*—*The Secretary of Energy, in con-*  
 4 *sultation with the Secretary of Agriculture and the Admin-*  
 5 *istrator of the Environmental Protection Agency, shall enter*  
 6 *into an arrangement with the National Academy of*  
 7 *Sciences under which the Academy shall conduct a study*  
 8 *to assess the impact of the requirements described in section*  
 9 *211(o) of the Clean Air Act on each industry relating to*  
 10 *the production of feed grains, livestock, food, forest products,*  
 11 *and energy.*

12 (b) *PARTICIPATION.*—*In conducting the study under*  
 13 *this section, the National Academy of Sciences shall seek*  
 14 *the participation, and consider the input, of—*

- 15 (1) *producers of feed grains;*
- 16 (2) *producers of livestock, poultry, and pork*  
 17 *products;*
- 18 (3) *producers of food and food products;*
- 19 (4) *producers of energy;*
- 20 (5) *individuals and entities interested in issues*  
 21 *relating to conservation, the environment, and nutri-*  
 22 *tion;*
- 23 (6) *users and consumer of renewable fuels;*
- 24 (7) *producers and users of biomass feedstocks;*  
 25 *and*
- 26 (8) *land grant universities.*

1       (c) *CONSIDERATIONS.—In conducting the study, the*  
 2 *National Academy of Sciences shall consider—*

3           (1) *the likely impact on domestic animal agri-*  
 4 *culture feedstocks that, in any crop year, are signifi-*  
 5 *cantly below current projections;*

6           (2) *policy options to alleviate the impact on do-*  
 7 *mestic animal agriculture feedstocks that are signifi-*  
 8 *cantly below current projections; and*

9           (3) *policy options to maintain regional agricul-*  
 10 *tural and silvicultural capability.*

11       (d) *COMPONENTS.—The study shall include—*

12           (1) *a description of the conditions under which*  
 13 *the requirements described in section 211(o) of the*  
 14 *Clean Air Act should be suspended or reduced to pre-*  
 15 *vent adverse impacts to domestic animal agriculture*  
 16 *feedstocks described in subsection (c)(2) or regional*  
 17 *agricultural and silvicultural capability described in*  
 18 *subsection (c)(3); and*

19           (2) *recommendations for the means by which the*  
 20 *Federal Government could prevent or minimize ad-*  
 21 *verse economic hardships and impacts.*

22       (e) *DEADLINE FOR COMPLETION OF STUDY.—Not later*  
 23 *than 18 months after the date of enactment of this Act, the*  
 24 *Secretary shall submit to Congress a report that describes*  
 25 *the results of the study under this section.*



1       (f) *PERIODIC REVIEWS*.—Section 211(o) of the Clean  
 2 Air Act is amended by adding the following at the end  
 3 thereof:

4               “(11) *PERIODIC REVIEWS*.—To allow for the ap-  
 5 propriate adjustment of the requirements described in  
 6 subparagraph (B) of paragraph (2), the Adminis-  
 7 trator shall conduct periodic reviews of—

8               “(A) existing technologies;

9               “(B) the feasibility of achieving compliance  
 10 with the requirements; and

11               “(C) the impacts of the requirements de-  
 12 scribed in subsection (a)(2) on each individual  
 13 and entity described in paragraph (2).”.

14 **SEC. 204. ENVIRONMENTAL AND RESOURCE CONSERVA-**  
 15 **TION IMPACTS.**

16       (a) *IN GENERAL*.—Not later than 3 years after the en-  
 17 actment of this section and every 3 years thereafter, the Ad-  
 18 ministrator of the Environmental Protection Agency, in  
 19 consultation with the Secretary of Agriculture and the Sec-  
 20 retary of Energy, shall assess and report to Congress on  
 21 the impacts to date and likely future impacts of the require-  
 22 ments of section 211(o) of the Clean Air Act on the fol-  
 23 lowing:

24               (1) *Environmental issues, including air quality,*  
 25 *effects on hypoxia, pesticides, sediment, nutrient and*

1        *pathogen levels in waters, acreage and function of wa-*  
 2        *ters, and soil environmental quality.*

3            *(2) Resource conservation issues, including soil*  
 4        *conservation, water availability, and ecosystem health*  
 5        *and biodiversity, including impacts on forests, grass-*  
 6        *lands, and wetlands.*

7            *(3) The growth and use of cultivated invasive or*  
 8        *noxious plants and their impacts on the environment*  
 9        *and agriculture.*

10    *In advance of preparing the report required by this sub-*  
 11    *section, the Administrator may seek the views of the Na-*  
 12    *tional Academy of Sciences or another appropriate inde-*  
 13    *pendent research institute. The report shall include the an-*  
 14    *nual volume of imported renewable fuels and feedstocks for*  
 15    *renewable fuels, and the environmental impacts outside the*  
 16    *United States of producing such fuels and feedstocks. The*  
 17    *report required by this subsection shall include rec-*  
 18    *ommendations for actions to address any adverse impacts*  
 19    *found.*

20            *(b) EFFECT ON AIR QUALITY AND OTHER ENVIRON-*  
 21    *MENTAL REQUIREMENTS.—Except as provided in section*  
 22    *211(o)(12) of the Clean Air Act, nothing in the amendments*  
 23    *made by this title to section 211(o) of the Clean Air Act*  
 24    *shall be construed as superseding, or limiting, any more*  
 25    *environmentally protective requirement under the Clean*

1 *Air Act, or under any other provision of State or Federal*  
 2 *law or regulation, including any environmental law or reg-*  
 3 *ulation.*

4 **SEC. 205. BIOMASS BASED DIESEL AND BIODIESEL LABEL-**  
 5 **ING.**

6 (a) *IN GENERAL.*—Each retail diesel fuel pump shall  
 7 be labeled in a manner that informs consumers of the per-  
 8 cent of biomass-based diesel or biodiesel that is contained  
 9 in the biomass-based diesel blend or biodiesel blend that is  
 10 offered for sale, as determined by the Federal Trade Com-  
 11 mission.

12 (b) *LABELING REQUIREMENTS.*—Not later than 180  
 13 days after the date of enactment of this section, the Federal  
 14 Trade Commission shall promulgate biodiesel labeling re-  
 15 quirements as follows:

16 (1) *Biomass-based diesel blends or biodiesel*  
 17 *blends that contain less than or equal to 5 percent*  
 18 *biomass-based diesel or biodiesel by volume and that*  
 19 *meet ASTM D975 diesel specifications shall not re-*  
 20 *quire any additional labels.*

21 (2) *Biomass based diesel blends or biodiesel*  
 22 *blends that contain more than 5 percent biomass-*  
 23 *based diesel or biodiesel by volume but not more than*  
 24 *20 percent by volume shall be labeled “contains bio-*

1     *mass-based diesel or biodiesel in quantities between 5*  
 2     *percent and 20 percent”.*

3             *(3) Biomass-based diesel or biodiesel blends that*  
 4     *contain more than 20 percent biomass based or bio-*  
 5     *diesel by volume shall be labeled “contains more than*  
 6     *20 percent biomass-based diesel or biodiesel”.*

7     *(c) DEFINITIONS.—In this section:*

8             *(1) ASTM.—The term “ASTM” means the Amer-*  
 9     *ican Society of Testing and Materials.*

10            *(2) BIOMASS-BASED DIESEL.—The term “bio-*  
 11     *mass-based diesel” means biodiesel as defined in sec-*  
 12     *tion 312(f) of the Energy Policy Act of 1992 (42*  
 13     *U.S.C. 13220(f)).*

14            *(3) BIODIESEL.—The term “biodiesel” means the*  
 15     *monoalkyl esters of long chain fatty acids derived*  
 16     *from plant or animal matter that meet—*

17                     *(A) the registration requirements for fuels*  
 18                     *and fuel additives under this section; and*

19                     *(B) the requirements of ASTM standard*  
 20                     *D6751.*

21            *(4) BIOMASS-BASED DIESEL AND BIODIESEL*  
 22     *BLENDS.—The terms “biomass-based diesel blend”*  
 23     *and “biodiesel blend” means a blend of “biomass-*  
 24     *based diesel” or “biodiesel” fuel that is blended with*  
 25     *petroleum based diesel fuel.*

1 **SEC. 206. STUDY OF CREDITS FOR USE OF RENEWABLE**  
 2 **ELECTRICITY IN ELECTRIC VEHICLES.**

3 (a) *DEFINITION OF ELECTRIC VEHICLE.*—In this sec-  
 4 tion, the term “electric vehicle” means an electric motor ve-  
 5 hicle (as defined in section 601 of the Energy Policy Act  
 6 of 1992 (42 U.S.C. 13271)) for which the rechargeable stor-  
 7 age battery—

8 (1) receives a charge directly from a source of  
 9 electric current that is external to the vehicle; and

10 (2) provides a minimum of 80 percent of the mo-  
 11 tive power of the vehicle.

12 (b) *STUDY.*—The Administrator of the Environmental  
 13 Protection Agency shall conduct a study on the feasibility  
 14 of issuing credits under the program established under sec-  
 15 tion 211(o) of the Clean Air Act to electric vehicles powered  
 16 by electricity produced from renewable energy sources.

17 (c) *REPORT.*—Not later than 18 months after the date  
 18 of enactment of this Act, the Administrator shall submit  
 19 to the Committee on Energy and Natural Resources of the  
 20 United States Senate and the Committee on Energy and  
 21 Commerce of the United States House of Representatives a  
 22 report that describes the results of the study, including a  
 23 description of—

24 (1) existing programs and studies on the use of  
 25 renewable electricity as a means of powering electric  
 26 vehicles; and

1           (2) *alternatives for—*

2                   (A) *designing a pilot program to determine*  
 3                   *the feasibility of using renewable electricity to*  
 4                   *power electric vehicles as an adjunct to a renew-*  
 5                   *able fuels mandate;*

6                   (B) *allowing the use, under the pilot pro-*  
 7                   *gram designed under subparagraph (A), of elec-*  
 8                   *tricity generated from nuclear energy as an ad-*  
 9                   *ditional source of supply;*

10                  (C) *identifying the source of electricity used*  
 11                  *to power electric vehicles; and*

12                  (D) *equating specific quantities of elec-*  
 13                  *tricity to quantities of renewable fuel under sec-*  
 14                  *tion 211(o) of the Clean Air Act.*

15 **SEC. 207. GRANTS FOR PRODUCTION OF ADVANCED**  
 16 **BIOFUELS.**

17           (a) *IN GENERAL.—The Secretary of Energy shall es-*  
 18           *tablish a grant program to encourage the production of ad-*  
 19           *vanced biofuels.*

20           (b) *REQUIREMENTS AND PRIORITY.—In making*  
 21           *grants under this section, the Secretary—*

22                   (1) *shall make awards to the proposals for ad-*  
 23                   *vanced biofuels with the greatest reduction in lifecycle*  
 24                   *greenhouse gas emissions compared to the comparable*

1       *motor vehicle fuel lifecycle emissions during calendar*  
 2       *year 2005; and*

3               *(2) shall not make an award to a project that*  
 4       *does not achieve at least a 80 percent reduction in*  
 5       *such lifecycle greenhouse gas emissions.*

6       *(c) AUTHORIZATION OF APPROPRIATIONS.—There is*  
 7       *authorized to be appropriated to carry out this section*  
 8       *\$500,000,000 for the period of fiscal years 2008 through*  
 9       *2015.*

10   **SEC. 208. INTEGRATED CONSIDERATION OF WATER QUAL-**  
 11                       **ITY IN DETERMINATIONS ON FUELS AND**  
 12                       **FUEL ADDITIVES.**

13       *Section 211(c)(1) of the Clean Air Act (42 U.S.C.*  
 14       *7545(c)(1)) is amended as follows:*

15               *(1) By striking “nonroad vehicle (A) if in the*  
 16       *judgment of the Administrator” and inserting*  
 17       *“nonroad vehicle if, in the judgment of the Adminis-*  
 18       *trator, any fuel or fuel additive or”; and*

19               *(2) In subparagraph (A), by striking “air pollu-*  
 20       *tion which” and inserting “air pollution or water*  
 21       *pollution (including any degradation in the quality*  
 22       *of groundwater) that”.*

23   **SEC. 209. ANTI-BACKSLIDING.**

24       *Section 211 of the Clean Air Act (42 U.S.C. 7545) is*  
 25       *amended by adding at the end the following:*

1       “(v) *PREVENTION OF AIR QUALITY DETERIORA-*  
 2 *TION.—*

3               “(1) *STUDY.—*

4                       “(A) *IN GENERAL.—Not later than 18*  
 5 *months after the date of enactment of this sub-*  
 6 *section, the Administrator shall complete a study*  
 7 *to determine whether the renewable fuel volumes*  
 8 *required by this section will adversely impact air*  
 9 *quality as a result of changes in vehicle and en-*  
 10 *gine emissions of air pollutants regulated under*  
 11 *this Act.*

12                      “(B) *CONSIDERATIONS.—The study shall*  
 13 *include consideration of—*

14                               “(i) *different blend levels, types of re-*  
 15 *newable fuels, and available vehicle tech-*  
 16 *nologies; and*

17                               “(ii) *appropriate national, regional,*  
 18 *and local air quality control measures.*

19               “(2) *REGULATIONS.—Not later than 3 years*  
 20 *after the date of enactment of this subsection, the Ad-*  
 21 *ministrator shall—*

22                       “(A) *promulgate fuel regulations to imple-*  
 23 *ment appropriate measures to mitigate, to the*  
 24 *greatest extent achievable, considering the results*  
 25 *of the study under paragraph (1), any adverse*



1           *impacts on air quality, as the result of the re-*  
 2           *newable volumes required by this section; or*

3           “(B) *make a determination that no such*  
 4           *measures are necessary.*”.

5   **SEC. 210. EFFECTIVE DATE, SAVINGS PROVISION, AND**  
 6           **TRANSITION RULES.**

7           (a) *TRANSITION RULES.—(1) For calendar year 2008,*  
 8           *transportation fuel sold or introduced into commerce in the*  
 9           *United States (except in noncontiguous States or terri-*  
 10           *tories), that is produced from facilities that commence con-*  
 11           *struction after the date of enactment of this Act shall be*  
 12           *treated as renewable fuel within the meaning of section*  
 13           *211(o) of the Clean Air Act only if it achieves at least a*  
 14           *20 percent reduction in lifecycle greenhouse gas emissions*  
 15           *compared to baseline lifecycle greenhouse gas emissions. For*  
 16           *calendar years 2008 and 2009, any ethanol plant that is*  
 17           *fired with natural gas, biomass, or any combination thereof*  
 18           *is deemed to be in compliance with such 20 percent reduc-*  
 19           *tion requirement and with the 20 percent reduction require-*  
 20           *ment of section 211(o)(1) of the Clean Air Act. The terms*  
 21           *used in this subsection shall have the same meaning as pro-*  
 22           *vided in the amendment made by this Act to section 211(o)*  
 23           *of the Clean Air Act.*

24           (2) *Until January 1, 2009, the Administrator of the*  
 25           *Environmental Protection Agency shall implement section*

1 211(o) of the Clean Air Act and the rules promulgated  
 2 under that section in accordance with the provisions of that  
 3 section as in effect before the enactment of this Act and in  
 4 accordance with the rules promulgated before the enactment  
 5 of this Act, except that for calendar year 2008, the number  
 6 “9.0” shall be substituted for the number “5.4” in the table  
 7 in section 211(o)(2)(B) and in the corresponding rules pro-  
 8 mulgated to carry out those provisions. The Administrator  
 9 is authorized to take such other actions as may be necessary  
 10 to carry out this paragraph notwithstanding any other pro-  
 11 vision of law.

12 (b) SAVINGS CLAUSE.—Section 211(o) of the Clean Air  
 13 Act (42 U.S.C. 7545(o)) is amended by adding the following  
 14 new paragraph at the end thereof:

15 “(12) EFFECT ON OTHER PROVISIONS.—Nothing  
 16 in this subsection, or regulations issued pursuant to  
 17 this subsection, shall affect or be construed to affect  
 18 the regulatory status of carbon dioxide or any other  
 19 greenhouse gas, or to expand or limit regulatory au-  
 20 thority regarding carbon dioxide or any other green-  
 21 house gas, for purposes of other provisions (including  
 22 section 165) of this Act. The previous sentence shall  
 23 not affect implementation and enforcement of this  
 24 subsection.”.

1       (c) *EFFECTIVE DATE.*—*The amendments made by this*  
 2 *title to section 211(o) of the Clean Air Act shall take effect*  
 3 *January 1, 2009, except that the Administrator shall pro-*  
 4 *mulgate regulations to carry out such amendments not later*  
 5 *than one year after the enactment of this Act.*

6       ***Subtitle B—Biofuels Research and***  
 7                                   ***Development***

8       ***SEC. 221. BIODIESEL.***

9       (a) *BIODIESEL STUDY.*—*Not later than 180 days after*  
 10 *the date of enactment of this Act, the Secretary, in consulta-*  
 11 *tion with the Administrator of the Environmental Protec-*  
 12 *tion Agency, shall submit to Congress a report on any re-*  
 13 *search and development challenges inherent in increasing*  
 14 *the proportion of diesel fuel sold in the United States that*  
 15 *is biodiesel.*

16       (b) *MATERIAL FOR THE ESTABLISHMENT OF STAND-*  
 17 *ARDS.*—*The Director of the National Institute of Standards*  
 18 *and Technology, in consultation with the Secretary, shall*  
 19 *make publicly available the physical property data and*  
 20 *characterization of biodiesel and other biofuels as appro-*  
 21 *priate.*

22       ***SEC. 222. BIOGAS.***

23       *Not later than 180 days after the date of enactment*  
 24 *of this Act, the Secretary, in consultation with the Adminis-*  
 25 *trator of the Environmental Protection Agency, shall sub-*

1 *mit to Congress a report on any research and development*  
 2 *challenges inherent in increasing the amount of transpor-*  
 3 *tation fuels sold in the United States that are fuel with*  
 4 *biogas or a blend of biogas and natural gas.*

5 **SEC. 223. GRANTS FOR BIOFUEL PRODUCTION RESEARCH**  
 6 **AND DEVELOPMENT IN CERTAIN STATES.**

7 *(a) IN GENERAL.—The Secretary shall provide grants*  
 8 *to eligible entities for research, development, demonstration,*  
 9 *and commercial application of biofuel production tech-*  
 10 *nologies in States with low rates of ethanol production, in-*  
 11 *cluding low rates of production of cellulosic biomass eth-*  
 12 *anol, as determined by the Secretary.*

13 *(b) ELIGIBILITY.—To be eligible to receive a grant*  
 14 *under this section, an entity shall—*

15 *(1)(A) be an institution of higher education (as*  
 16 *defined in section 2 of the Energy Policy Act of 2005*  
 17 *(42 U.S.C. 15801)), including tribally controlled col-*  
 18 *leges or universities, located in a State described in*  
 19 *subsection (a); or*

20 *(B) be a consortium including at least 1 such in-*  
 21 *stitution of higher education, and industry, State*  
 22 *agencies, Indian tribal agencies, National Labora-*  
 23 *tories, or local government agencies located in the*  
 24 *State; and*

1           (2) *have proven experience and capabilities with*  
 2       *relevant technologies.*

3       (c) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
 4       *authorized to be appropriated to the Secretary to carry out*  
 5       *this section \$25,000,000 for each of fiscal years 2008*  
 6       *through 2010.*

7       **SEC. 224. BIOREFINERY ENERGY EFFICIENCY.**

8       *Section 932 of Energy Policy Act of 2005 (42 U.S.C.*  
 9       *16232) is amended by adding at the end the following new*  
 10      *subsections:*

11       “(g) *BIOREFINERY ENERGY EFFICIENCY.—The Sec-*  
 12      *retary shall establish a program of research, development,*  
 13      *demonstration, and commercial application for increasing*  
 14      *energy efficiency and reducing energy consumption in the*  
 15      *operation of biorefinery facilities.*

16       “(h) *RETROFIT TECHNOLOGIES FOR THE DEVELOP-*  
 17      *MENT OF ETHANOL FROM CELLULOSIC MATERIALS.—The*  
 18      *Secretary shall establish a program of research, develop-*  
 19      *ment, demonstration, and commercial application on tech-*  
 20      *nologies and processes to enable biorefineries that exclu-*  
 21      *sively use corn grain or corn starch as a feedstock to*  
 22      *produce ethanol to be retrofitted to accept a range of bio-*  
 23      *mass, including lignocellulosic feedstocks.”.*

1 **SEC. 225. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED**  
2 **VEHICLES TO USE E-85 FUEL.**

3 (a) *IN GENERAL.*—The Secretary, in consultation with  
4 the Secretary of Transportation and the Administrator of  
5 the Environmental Protection Agency, shall conduct a  
6 study of whether optimizing flexible fueled vehicles to oper-  
7 ate using E-85 fuel would increase the fuel efficiency of  
8 flexible fueled vehicles.

9 (b) *REPORT.*—Not later than 180 days after the date  
10 of enactment of this Act, the Secretary shall submit to the  
11 Committee on Science and Technology and the Committee  
12 on Energy and Commerce of the House of Representatives,  
13 and to the Committee on Energy and Natural Resources,  
14 the Committee on Environment and Public Works, and the  
15 Committee on Commerce, Science, and Transportation of  
16 the Senate, a report that describes the results of the study  
17 under this section, including any recommendations of the  
18 Secretary.

19 **SEC. 226. STUDY OF ENGINE DURABILITY AND PERFORM-**  
20 **ANCE ASSOCIATED WITH THE USE OF BIO-**  
21 **DIESEL.**

22 (a) *IN GENERAL.*—Not later than 30 days after the  
23 date of enactment of this Act, the Secretary, in consultation  
24 with the Administrator of the Environmental Protection  
25 Agency, shall initiate a study on the effects of the use of

1 *biodiesel on the performance and durability of engines and*  
2 *engine systems.*

3 (b) *COMPONENTS.*—*The study under this section shall*  
4 *include—*

5 (1) *an assessment of whether the use of biodiesel*  
6 *lessens the durability and performance of conven-*  
7 *tional diesel engines and engine systems; and*

8 (2) *an assessment of the effects referred to in sub-*  
9 *section (a) with respect to biodiesel blends at varying*  
10 *concentrations, including the following percentage*  
11 *concentrations of biodiesel:*

12 (A) *5 percent biodiesel.*

13 (B) *10 percent biodiesel.*

14 (C) *20 percent biodiesel.*

15 (D) *30 percent biodiesel.*

16 (E) *100 percent biodiesel.*

17 (c) *REPORT.*—*Not later than 24 months after the date*  
18 *of enactment of this Act, the Secretary shall submit to the*  
19 *Committee on Science and Technology and the Committee*  
20 *on Energy and Commerce of the House of Representatives,*  
21 *and to the Committee on Energy and Natural Resources*  
22 *and the Committee on Environment and Public Works of*  
23 *the Senate, a report that describes the results of the study*  
24 *under this section, including any recommendations of the*  
25 *Secretary.*

1 **SEC. 227. STUDY OF OPTIMIZATION OF BIOGAS USED IN**  
2 **NATURAL GAS VEHICLES.**

3 (a) *IN GENERAL.*—The Secretary, in consultation with  
4 the Administrator of the Environmental Protection Agency  
5 and the Secretary of Transportation, shall conduct a study  
6 of methods of increasing the fuel efficiency of vehicles using  
7 biogas by optimizing natural gas vehicle systems that can  
8 operate on biogas, including the advancement of vehicle fuel  
9 systems and the combination of hybrid-electric and plug-  
10 in hybrid electric drive platforms with natural gas vehicle  
11 systems using biogas.

12 (b) *REPORT.*—Not later than 180 days after the date  
13 of enactment of this Act, the Secretary shall submit to the  
14 Committee on Energy and Natural Resources, the Com-  
15 mittee on Environment and Public Works, and the Com-  
16 mittee on Commerce, Science, and Transportation of the  
17 Senate, and to the Committee on Science and Technology  
18 and the Committee on Energy and Commerce of the House  
19 of Representatives, a report that describes the results of the  
20 study, including any recommendations of the Secretary.

21 **SEC. 228. ALGAL BIOMASS.**

22 (a) *IN GENERAL.*—Not later than 90 days after the  
23 date of enactment of this Act, the Secretary shall submit  
24 to the Committee on Science and Technology of the House  
25 of Representatives and the Committee on Energy and Nat-  
26 ural Resources of the Senate a report on the progress of



1 *the research and development that is being conducted on*  
 2 *the use of algae as a feedstock for the production of biofuels.*

3 (b) *CONTENTS.—The report shall identify continuing*  
 4 *research and development challenges and any regulatory or*  
 5 *other barriers found by the Secretary that hinder the use*  
 6 *of this resource, as well as recommendations on how to en-*  
 7 *courage and further its development as a viable transpor-*  
 8 *tation fuel.*

9 **SEC. 229. BIOFUELS AND BIOREFINERY INFORMATION CEN-**  
 10 **TER.**

11 (a) *IN GENERAL.—The Secretary, in cooperation with*  
 12 *the Secretary of Agriculture, shall establish a biofuels and*  
 13 *biorefinery information center to make available to inter-*  
 14 *ested parties information on—*

15 (1) *renewable fuel feedstocks, including the vari-*  
 16 *eties of fuel capable of being produced from various*  
 17 *feedstocks;*

18 (2) *biorefinery processing techniques related to*  
 19 *various renewable fuel feedstocks;*

20 (3) *the distribution, blending, storage, and retail*  
 21 *dispensing infrastructure necessary for the transport*  
 22 *and use of renewable fuels;*

23 (4) *Federal and State laws and incentives re-*  
 24 *lated to renewable fuel production and use;*

1           (5) *renewable fuel research and development ad-*  
 2           *vancements;*

3           (6) *renewable fuel development and biorefinery*  
 4           *processes and technologies;*

5           (7) *renewable fuel resources, including informa-*  
 6           *tion on programs and incentives for renewable fuels;*

7           (8) *renewable fuel producers;*

8           (9) *renewable fuel users; and*

9           (10) *potential renewable fuel users.*

10          (b) *ADMINISTRATION.—In administering the biofuels*  
 11          *and biorefinery information center, the Secretary shall—*

12           (1) *continually update information provided by*  
 13           *the center;*

14           (2) *make information available relating to proc-*  
 15           *esses and technologies for renewable fuel production;*

16           (3) *make information available to interested par-*  
 17           *ties on the process for establishing a biorefinery; and*

18           (4) *make information and assistance provided by*  
 19           *the center available through a toll-free telephone num-*  
 20           *ber and website.*

21          (c) *COORDINATION AND NONDUPLICATION.—To max-*  
 22          *imum extent practicable, the Secretary shall ensure that the*  
 23          *activities under this section are coordinated with, and do*  
 24          *not duplicate the efforts of, centers at other government*  
 25          *agencies.*

1       (d) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 2 *authorized to be appropriated such sums as are necessary*  
 3 *to carry out this section.*

4 **SEC. 230. CELLULOSIC ETHANOL AND BIOFUELS RE-**  
 5 **SEARCH.**

6       (a) *DEFINITION OF ELIGIBLE ENTITY.*—*In this sec-*  
 7 *tion, the term “eligible entity” means—*

8               (1) *an 1890 Institution (as defined in section 2*  
 9 *of the Agricultural Research, Extension, and Edu-*  
 10 *cation Reform Act of 1998 (7 U.S.C. 7061));*

11              (2) *a part B institution (as defined in section*  
 12 *322 of the Higher Education Act of 1965 (20 U.S.C.*  
 13 *1061)) (commonly referred to as “Historically Black*  
 14 *Colleges and Universities”);*

15              (3) *a tribal college or university (as defined in*  
 16 *section 316(b) of the Higher Education Act of 1965*  
 17 *(20 U.S.C. 1059c(b)); or*

18              (4) *a Hispanic-serving institution (as defined in*  
 19 *section 502(a) of the Higher Education Act of 1965*  
 20 *(20 U.S.C. 1101a(a)).*

21       (b) *GRANTS.*—*The Secretary shall make cellulosic eth-*  
 22 *anol and biofuels research and development grants to 10*  
 23 *eligible entities selected by the Secretary to receive a grant*  
 24 *under this section through a peer-reviewed competitive proc-*  
 25 *ess.*

1       (c) *COLLABORATION.*—*An eligible entity that is se-*  
 2 *lected to receive a grant under subsection (b) shall collabo-*  
 3 *rate with 1 of the Bioenergy Research Centers of the Office*  
 4 *of Science of the Department.*

5       (d) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 6 *authorized to be appropriated to the Secretary to make*  
 7 *grants described in subsection (b) \$50,000,000 for fiscal*  
 8 *year 2008, to remain available until expended.*

9       **SEC. 231. BIOENERGY RESEARCH AND DEVELOPMENT, AU-**  
 10                                   **THORIZATION OF APPROPRIATION.**

11       *Section 931 of the Energy Policy Act of 2005 (42*  
 12 *U.S.C. 16231) is amended—*

13               (1) *in subsection (b)—*

14                       (A) *in paragraph (2), by striking “and” at*  
 15                       *the end;*

16                       (B) *in paragraph (3), by striking the period*  
 17                       *at the end and inserting “; and”; and*

18                       (C) *by adding at the end the following:*

19                       “(4) \$963,000,000 for fiscal year 2010.”; and

20               (2) *in subsection (c)—*

21                       (A) *in paragraph (2)—*

22                               (i) *by striking “\$251,000,000” and in-*  
 23                               *serting “\$377,000,000”; and*

24                               (ii) *by striking “and” at the end;*

25                       (B) *in paragraph (3)—*

1                   (i) by striking “\$274,000,000” and in-  
2                   serting “\$398,000,000”; and

3                   (ii) by striking the period at the end  
4                   and inserting “; and”; and

5                   (C) by adding at the end the following:

6                   “(4) \$419,000,000 for fiscal year 2010, of which  
7                   \$150,000,000 shall be for section 932(d).”.

8 **SEC. 232. ENVIRONMENTAL RESEARCH AND DEVELOPMENT.**

9                   (a) *IN GENERAL*.—Section 977 of the Energy Policy  
10 *Act of 2005* (42 U.S.C. 16317) is amended—

11                   (1) in subsection (a)(1), by striking “and com-  
12                   putational biology” and inserting “computational bi-  
13                   ology, and environmental science”; and

14                   (2) in subsection (b)—

15                   (A) in paragraph (1), by inserting “in sus-  
16                   tainable production systems that reduce green-  
17                   house gas emissions” after “hydrogen”;

18                   (B) in paragraph (3), by striking “and” at  
19                   the end;

20                   (C) by redesignating paragraph (4) as  
21                   paragraph (5); and

22                   (D) by inserting after paragraph (3) the fol-  
23                   lowing:

24                   “(4) develop cellulosic and other feedstocks that  
25                   are less resource and land intensive and that promote

1        *sustainable use of resources, including soil, water, en-*  
 2        *ergy, forests, and land, and ensure protection of air,*  
 3        *water, and soil quality; and”.*

4        (b) *TOOLS AND EVALUATION.*—Section 307(d) of the  
 5        *Biomass Research and Development Act of 2000 (7 U.S.C.*  
 6        *8606(d)) is amended—*

7                (1) *in paragraph (3)(E), by striking “and” at*  
 8        *the end;*

9                (2) *in paragraph (4), by striking the period at*  
 10        *the end and inserting a semicolon; and*

11                (3) *by adding at the end the following:*

12                “(5) *the improvement and development of ana-*  
 13        *lytical tools to facilitate the analysis of life-cycle en-*  
 14        *ergy and greenhouse gas emissions, including emis-*  
 15        *sions related to direct and indirect land use changes,*  
 16        *attributable to all potential biofuel feedstocks and pro-*  
 17        *duction processes; and*

18                “(6) *the systematic evaluation of the impact of*  
 19        *expanded biofuel production on the environment, in-*  
 20        *cluding forest lands, and on the food supply for hu-*  
 21        *mans and animals.”.*

22        (c) *SMALL-SCALE PRODUCTION AND USE OF*  
 23        *BIOFUELS.*—Section 307(e) of the *Biomass Research and*  
 24        *Development Act of 2000 (7 U.S.C. 8606(e)) is amended—*

1           (1) in paragraph (2), by striking “and” at the  
2       end;

3           (2) in paragraph (3), by striking the period at  
4       the end and inserting “; and”; and

5           (3) by adding at the end the following:

6           “(4) to facilitate small-scale production, local,  
7       and on-farm use of biofuels, including the develop-  
8       ment of small-scale gasification technologies for pro-  
9       duction of biofuel from cellulosic feedstocks.”.

10 **SEC. 233. BIOENERGY RESEARCH CENTERS.**

11       Section 977 of the Energy Policy Act of 2005 (42  
12 U.S.C. 16317) is amended by adding at the end the fol-  
13 lowing:

14       “(f) **BIOENERGY RESEARCH CENTERS.**—

15           “(1) **ESTABLISHMENT OF CENTERS.**—In car-  
16       rying out the program under subsection (a), the Sec-  
17       retary shall establish at least 7 bioenergy research  
18       centers, which may be of varying size.

19           “(2) **GEOGRAPHIC DISTRIBUTION.**—The Sec-  
20       retary shall establish at least 1 bioenergy research  
21       center in each Petroleum Administration for Defense  
22       District or Subdistrict of a Petroleum Administration  
23       for Defense District.

24           “(3) **GOALS.**—The goals of the centers established  
25       under this subsection shall be to accelerate basic

1        *transformational research and development of*  
 2        *biofuels, including biological processes.*

3                “(4) *SELECTION AND DURATION.*—

4                        “(A) *IN GENERAL.*—A center under this  
 5                        subsection shall be selected on a competitive basis  
 6                        for a period of 5 years.

7                        “(B) *REAPPLICATION.*—After the end of the  
 8                        period described in subparagraph (A), a grantee  
 9                        may reapply for selection on a competitive basis.

10                “(5) *INCLUSION.*—A center that is in existence  
 11        on the date of enactment of this subsection—

12                        “(A) shall be counted towards the require-  
 13                        ment for establishment of at least 7 bioenergy re-  
 14                        search centers; and

15                        “(B) may continue to receive support for a  
 16                        period of 5 years beginning on the date of estab-  
 17                        lishment of the center.”.

18        **SEC. 234. UNIVERSITY BASED RESEARCH AND DEVELOP-**  
 19                **MENT GRANT PROGRAM.**

20                (a) *ESTABLISHMENT.*—The Secretary shall establish a  
 21        competitive grant program, in a geographically diverse  
 22        manner, for projects submitted for consideration by institu-  
 23        tions of higher education to conduct research and develop-  
 24        ment of renewable energy technologies. Each grant made  
 25        shall not exceed \$2,000,000.



1       (b) *ELIGIBILITY.*—*Priority shall be given to institu-*  
 2 *tions of higher education with—*

3           (1) *established programs of research in renewable*  
 4 *energy;*

5           (2) *locations that are low income or outside of*  
 6 *an urbanized area;*

7           (3) *a joint venture with an Indian tribe; and*

8           (4) *proximity to trees dying of disease or insect*  
 9 *infestation as a source of woody biomass.*

10       (c) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 11 *authorized to be appropriated to the Secretary \$25,000,000*  
 12 *for carrying out this section.*

13       (d) *DEFINITIONS.*—*In this section:*

14           (1) *INDIAN TRIBE.*—*The term “Indian tribe” has*  
 15 *the meaning as defined in section 126(c) of the En-*  
 16 *ergy Policy Act of 2005.*

17           (2) *RENEWABLE ENERGY.*—*The term “renewable*  
 18 *energy” has the meaning as defined in section 902 of*  
 19 *the Energy Policy Act of 2005.*

20           (3) *URBANIZED AREA.*—*The term “urbanized*  
 21 *area” has the mean as defined by the U.S. Bureau of*  
 22 *the Census.*

1 ***Subtitle C—Biofuels Infrastructure***

2 ***SEC. 241. PROHIBITION ON FRANCHISE AGREEMENT RE-***  
 3 ***STRICTIONS RELATED TO RENEWABLE FUEL***  
 4 ***INFRASTRUCTURE.***

5 *(a) IN GENERAL.—Title I of the Petroleum Marketing*  
 6 *Practices Act (15 U.S.C. 2801 et seq.) is amended by adding*  
 7 *at the end the following:*

8 ***“SEC. 107. PROHIBITION ON RESTRICTION OF INSTALLA-***  
 9 ***TION OF RENEWABLE FUEL PUMPS.***

10 *“(a) DEFINITION.—In this section:*

11 *“(1) RENEWABLE FUEL.—The term ‘renewable*  
 12 *fuel’ means any fuel—*

13 *“(A) at least 85 percent of the volume of*  
 14 *which consists of ethanol; or*

15 *“(B) any mixture of biodiesel and diesel or*  
 16 *renewable diesel (as defined in regulations adopt-*  
 17 *ed pursuant to section 211(o) of the Clean Air*  
 18 *Act (40 CFR, Part 80)), determined without re-*  
 19 *gard to any use of kerosene and containing at*  
 20 *least 20 percent biodiesel or renewable diesel.*

21 *“(2) FRANCHISE-RELATED DOCUMENT.—The*  
 22 *term ‘franchise-related document’ means—*

23 *“(A) a franchise under this Act; and*

1           “(B) any other contract or directive of a  
2           franchisor relating to terms or conditions of the  
3           sale of fuel by a franchisee.

4           “(b) PROHIBITIONS.—

5           “(1) IN GENERAL.—No franchise-related docu-  
6           ment entered into or renewed on or after the date of  
7           enactment of this section shall contain any provision  
8           allowing a franchisor to restrict the franchisee or any  
9           affiliate of the franchisee from—

10           “(A) installing on the marketing premises  
11           of the franchisee a renewable fuel pump or tank,  
12           except that the franchisee’s franchisor may re-  
13           strict the installation of a tank on leased mar-  
14           keting premises of such franchisor;

15           “(B) converting an existing tank or pump  
16           on the marketing premises of the franchisee for  
17           renewable fuel use, so long as such tank or pump  
18           and the piping connecting them are either war-  
19           ranted by the manufacturer or certified by a rec-  
20           ognized standards setting organization to be  
21           suitable for use with such renewable fuel;

22           “(C) advertising (including through the use  
23           of signage) the sale of any renewable fuel;

24           “(D) selling renewable fuel in any specified  
25           area on the marketing premises of the franchisee

1           *(including any area in which a name or logo of*  
 2           *a franchisor or any other entity appears);*

3           *“(E) purchasing renewable fuel from sources*  
 4           *other than the franchisor if the franchisor does*  
 5           *not offer its own renewable fuel for sale by the*  
 6           *franchisee;*

7           *“(F) listing renewable fuel availability or*  
 8           *prices, including on service station signs, fuel*  
 9           *dispensers, or light poles; or*

10           *“(G) allowing for payment of renewable fuel*  
 11           *with a credit card,*

12           *so long as such activities described in subparagraphs*  
 13           *(A) through (G) do not constitute mislabeling, mis-*  
 14           *branding, willful adulteration, or other trademark*  
 15           *violations by the franchisee.*

16           *“(2) EFFECT OF PROVISION.—Nothing in this*  
 17           *section shall be construed to preclude a franchisor*  
 18           *from requiring the franchisee to obtain reasonable in-*  
 19           *demnification and insurance policies.*

20           *“(c) EXCEPTION TO 3-GRADE REQUIREMENT.—No*  
 21           *franchise-related document that requires that 3 grades of*  
 22           *gasoline be sold by the applicable franchisee shall prevent*  
 23           *the franchisee from selling an renewable fuel in lieu of 1,*  
 24           *and only 1, grade of gasoline.”.*

1       (b) *ENFORCEMENT.*—Section 105 of the Petroleum  
 2   *Marketing Practices Act* (15 U.S.C. 2805) is amended by  
 3   striking “102 or 103” each place it appears and inserting  
 4   “102, 103, or 107”.

5       (c) *CONFORMING AMENDMENTS.*—

6           (1) *IN GENERAL.*—Section 101(13) of the Petro-  
 7   *leum Marketing Practices Act* (15 U.S.C. 2801(13)) is  
 8   amended by aligning the margin of subparagraph (C)  
 9   with subparagraph (B).

10          (2) *TABLE OF CONTENTS.*—The table of contents  
 11   of the *Petroleum Marketing Practices Act* (15 U.S.C.  
 12   2801 note) is amended—

13           (A) by inserting after the item relating to  
 14   section 106 the following:

“Sec. 107. Prohibition on restriction of installation of renewable fuel pumps.”;  
 and

15           (B) by striking the item relating to section  
 16   202 and inserting the following:

“Sec. 202. Automotive fuel rating testing and disclosure requirements.”.

17   **SEC. 242. RENEWABLE FUEL DISPENSER REQUIREMENTS.**

18       (a) *MARKET PENETRATION REPORTS.*—The Secretary,  
 19   in consultation with the Secretary of Transportation, shall  
 20   determine and report to Congress annually on the market  
 21   penetration for flexible-fuel vehicles in use within geo-  
 22   graphic regions to be established by the Secretary.

1       (b) *DISPENSER FEASIBILITY STUDY.*—Not later than  
2 24 months after the date of enactment of this Act, the Sec-  
3 retary, in consultation with the Department of Transpor-  
4 tation, shall report to the Congress on the feasibility of re-  
5 quiring motor fuel retailers to install E-85 compatible dis-  
6 pensers and related systems at retail fuel facilities in re-  
7 gions where flexible-fuel vehicle market penetration has  
8 reached 15 percent of motor vehicles. In conducting such  
9 study, the Secretary shall consider and report on the fol-  
10 lowing factors:

11           (1) *The commercial availability of E-85 fuel*  
12       *and the number of competing E-85 wholesale sup-*  
13       *pliers in a given region.*

14           (2) *The level of financial assistance provided on*  
15       *an annual basis by the Federal Government, State*  
16       *governments, and nonprofit entities for the installa-*  
17       *tion of E-85 compatible infrastructure.*

18           (3) *The number of retailers whose retail locations*  
19       *are unable to support more than 2 underground stor-*  
20       *age tank dispensers.*

21           (4) *The expense incurred by retailers in the in-*  
22       *stallation and sale of E-85 compatible dispensers and*  
23       *related systems and any potential effects on the price*  
24       *of motor vehicle fuel.*

1 **SEC. 243. ETHANOL PIPELINE FEASIBILITY STUDY.**

2       (a) *IN GENERAL.*—*The Secretary, in coordination*  
3 *with the Secretary of Transportation, shall conduct a study*  
4 *of the feasibility of the construction of pipelines dedicated*  
5 *to the transportation of ethanol.*

6       (b) *FACTORS FOR CONSIDERATION.*—*In conducting the*  
7 *study under subsection (a), the Secretary shall take into*  
8 *consideration—*

9           (1) *the quantity of ethanol production that*  
10 *would make dedicated pipelines economically viable;*

11           (2) *existing or potential barriers to the construc-*  
12 *tion of pipelines dedicated to the transportation of*  
13 *ethanol, including technical, siting, financing, and*  
14 *regulatory barriers;*

15           (3) *market risk (including throughput risk) and*  
16 *means of mitigating the risk;*

17           (4) *regulatory, financing, and siting options that*  
18 *would mitigate the risk and help ensure the construc-*  
19 *tion of 1 or more pipelines dedicated to the transpor-*  
20 *tation of ethanol;*

21           (5) *financial incentives that may be necessary*  
22 *for the construction of pipelines dedicated to the*  
23 *transportation of ethanol, including the return on eq-*  
24 *uity that sponsors of the initial dedicated ethanol*  
25 *pipelines will require to invest in the pipelines;*

1           (6) *technical factors that may compromise the*  
 2           *safe transportation of ethanol in pipelines, including*  
 3           *identification of remedial and preventive measures to*  
 4           *ensure pipeline integrity; and*

5           (7) *such other factors as the Secretary considers*  
 6           *to be appropriate.*

7           (c) *REPORT.*—*Not later than 15 months after the date*  
 8           *of enactment of this Act, the Secretary shall submit to Con-*  
 9           *gress a report describing the results of the study conducted*  
 10          *under this section.*

11          (d) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 12          *authorized to be appropriated to the Secretary to carry out*  
 13          *this section \$1,000,000 for each of fiscal years 2008 and*  
 14          *2009, to remain available until expended.*

15   **SEC. 244. RENEWABLE FUEL INFRASTRUCTURE GRANTS.**

16          (a) *DEFINITION OF RENEWABLE FUEL BLEND.*—*For*  
 17          *purposes of this section, the term “renewable fuel blend”*  
 18          *means gasoline blend that contain not less than 11 percent,*  
 19          *and not more than 85 percent, renewable fuel or diesel fuel*  
 20          *that contains at least 10 percent renewable fuel.*

21          (b) *INFRASTRUCTURE DEVELOPMENT GRANTS.*—

22               (1) *ESTABLISHMENT.*—*The Secretary shall estab-*  
 23          *lish a program for making grants for providing as-*  
 24          *sistance to retail and wholesale motor fuel dealers or*  
 25          *other entities for the installation, replacement, or con-*



1        *version of motor fuel storage and dispensing infra-*  
2        *structure to be used exclusively to store and dispense*  
3        *renewable fuel blends.*

4            (2) *SELECTION CRITERIA.—Not later than 12*  
5        *months after the date of enactment of this Act, the*  
6        *Secretary shall establish criteria for evaluating appli-*  
7        *cations for grants under this subsection that will*  
8        *maximize the availability and use of renewable fuel*  
9        *blends, and that will ensure that renewable fuel blends*  
10       *are available across the country. Such criteria shall*  
11       *provide for—*

12            (A) *consideration of the public demand for*  
13        *each renewable fuel blend in a particular geo-*  
14        *graphic area based on State registration records*  
15        *showing the number of flexible-fuel vehicles;*

16            (B) *consideration of the opportunity to cre-*  
17        *ate or expand corridors of renewable fuel blend*  
18        *stations along interstate or State highways;*

19            (C) *consideration of the experience of each*  
20        *applicant with previous, similar projects;*

21            (D) *consideration of population, number of*  
22        *flexible-fuel vehicles, number of retail fuel outlets,*  
23        *and saturation of flexible-fuel vehicles; and*

24            (E) *priority consideration to applications*  
25        *that—*

1                   (i) are most likely to maximize dis-  
 2                   placement of petroleum consumption, meas-  
 3                   ured as a total quantity and a percentage;

4                   (ii) are best able to incorporate exist-  
 5                   ing infrastructure while maximizing, to the  
 6                   extent practicable, the use of renewable fuel  
 7                   blends; and

8                   (iii) demonstrate the greatest commit-  
 9                   ment on the part of the applicant to ensure  
 10                  funding for the proposed project and the  
 11                  greatest likelihood that the project will be  
 12                  maintained or expanded after Federal as-  
 13                  sistance under this subsection is completed.

14               (3) *LIMITATIONS.*—Assistance provided under  
 15               this subsection shall not exceed—

16                   (A) 33 percent of the estimated cost of the  
 17                   installation, replacement, or conversion of motor  
 18                   fuel storage and dispensing infrastructure; or

19                   (B) \$180,000 for a combination of equip-  
 20                   ment at any one retail outlet location.

21               (4) *OPERATION OF RENEWABLE FUEL BLEND*  
 22               *STATIONS.*—The Secretary shall establish rules that  
 23               set forth requirements for grant recipients under this  
 24               section that include providing to the public the renew-  
 25               able fuel blends, establishing a marketing plan that

1 *informs consumers of the price and availability of the*  
2 *renewable fuel blends, clearly labeling the dispensers*  
3 *and related equipment, and providing periodic re-*  
4 *ports on the status of the renewable fuel blend sales,*  
5 *the type and amount of the renewable fuel blends dis-*  
6 *persed at each location, and the average price of such*  
7 *fuel.*

8 (5) *NOTIFICATION REQUIREMENTS.*—*Not later*  
9 *than the date on which each renewable fuel blend sta-*  
10 *tion begins to offer renewable fuel blends to the public,*  
11 *the grant recipient that used grant funds to construct*  
12 *or upgrade such station shall notify the Secretary of*  
13 *such opening. The Secretary shall add each new re-*  
14 *newable fuel blend station to the renewable fuel blend*  
15 *station locator on its Website when it receives notifi-*  
16 *cation under this subsection.*

17 (6) *DOUBLE COUNTING.*—*No person that receives*  
18 *a credit under section 30C of the Internal Revenue*  
19 *Code of 1986 may receive assistance under this sec-*  
20 *tion.*

21 (7) *RESERVATION OF FUNDS.*—*The Secretary*  
22 *shall reserve funds appropriated for the renewable fuel*  
23 *blends infrastructure development grant program for*  
24 *technical and marketing assistance described in sub-*  
25 *section (c).*

1       (c) *RETAIL TECHNICAL AND MARKETING ASSIST-*  
 2 *ANCE.*—*The Secretary shall enter into contracts with enti-*  
 3 *ties with demonstrated experience in assisting retail fueling*  
 4 *stations in installing refueling systems and marketing re-*  
 5 *newable fuel blends nationally, for the provision of technical*  
 6 *and marketing assistance to recipients of grants under this*  
 7 *section. Such assistance shall include—*

8               (1) *technical advice for compliance with applica-*  
 9 *ble Federal and State environmental requirements;*

10              (2) *help in identifying supply sources and secur-*  
 11 *ing long-term contracts; and*

12              (3) *provision of public outreach, education, and*  
 13 *labeling materials.*

14       (d) *REFUELING INFRASTRUCTURE CORRIDORS.*—

15              (1) *IN GENERAL.*—*The Secretary shall establish*  
 16 *a competitive grant pilot program (referred to in this*  
 17 *subsection as the “pilot program”), to be administered*  
 18 *through the Vehicle Technology Deployment Program*  
 19 *of the Department, to provide not more than 10 geo-*  
 20 *graphically-dispersed project grants to State govern-*  
 21 *ments, Indian tribal governments, local governments,*  
 22 *metropolitan transportation authorities, or partner-*  
 23 *ships of those entities to carry out 1 or more projects*  
 24 *for the purposes described in paragraph (2).*

(2) *GRANT PURPOSES.*—A grant under this subsection shall be used for the establishment of refueling infrastructure corridors, as designated by the Secretary, for renewable fuel blends, including—

(A) *installation of infrastructure and equipment necessary to ensure adequate distribution of renewable fuel blends within the corridor;*

(B) *installation of infrastructure and equipment necessary to directly support vehicles powered by renewable fuel blends; and*

(C) *operation and maintenance of infrastructure and equipment installed as part of a project funded by the grant.*

(3) *APPLICATIONS.*—

(A) *REQUIREMENTS.*—

(i) *IN GENERAL.*—Subject to clause (ii), not later than 90 days after the date of enactment of this Act, the Secretary shall issue requirements for use in applying for grants under the pilot program.

(ii) *MINIMUM REQUIREMENTS.*—At a minimum, the Secretary shall require that an application for a grant under this subsection—

(I) *be submitted by—*

1                   (aa) *the head of a State, trib-*  
2                   *al, or local government or a met-*  
3                   *ropolitan transportation author-*  
4                   *ity, or any combination of those*  
5                   *entities; and*

6                   (bb) *a registered participant*  
7                   *in the Vehicle Technology Deploy-*  
8                   *ment Program of the Department;*  
9                   *and*

10                  (II) *include—*

11                   (aa) *a description of the*  
12                   *project proposed in the applica-*  
13                   *tion, including the ways in which*  
14                   *the project meets the requirements*  
15                   *of this subsection;*

16                   (bb) *an estimate of the degree*  
17                   *of use of the project, including the*  
18                   *estimated size of fleet of vehicles*  
19                   *operated with renewable fuels*  
20                   *blend available within the geo-*  
21                   *graphic region of the corridor,*  
22                   *measured as a total quantity and*  
23                   *a percentage;*

24                   (cc) *an estimate of the poten-*  
25                   *tial petroleum displaced as a re-*

1 *sult of the project (measured as a*  
2 *total quantity and a percentage),*  
3 *and a plan to collect and dissemi-*  
4 *nate petroleum displacement and*  
5 *other relevant data relating to the*  
6 *project to be funded under the*  
7 *grant, over the expected life of the*  
8 *project;*

9 *(dd) a description of the*  
10 *means by which the project will be*  
11 *sustainable without Federal as-*  
12 *sistance after the completion of*  
13 *the term of the grant;*

14 *(ee) a complete description of*  
15 *the costs of the project, including*  
16 *acquisition, construction, oper-*  
17 *ation, and maintenance costs over*  
18 *the expected life of the project; and*

19 *(ff) a description of which*  
20 *costs of the project will be sup-*  
21 *ported by Federal assistance*  
22 *under this subsection.*

23 *(B) PARTNERS.—An applicant under sub-*  
24 *paragraph (A) may carry out a project under*

1           *the pilot program in partnership with public*  
2           *and private entities.*

3           (4) *SELECTION CRITERIA.—In evaluating appli-*  
4           *cations under the pilot program, the Secretary*  
5           *shall—*

6                   (A) *consider the experience of each appli-*  
7                   *cant with previous, similar projects; and*

8                   (B) *give priority consideration to applica-*  
9                   *tions that—*

10                           (i) *are most likely to maximize dis-*  
11                           *placement of petroleum consumption, meas-*  
12                           *ured as a total quantity and a percentage;*

13                           (ii) *are best able to incorporate exist-*  
14                           *ing infrastructure while maximizing, to the*  
15                           *extent practicable, the use of advanced*  
16                           *biofuels;*

17                           (iii) *demonstrate the greatest commit-*  
18                           *ment on the part of the applicant to ensure*  
19                           *funding for the proposed project and the*  
20                           *greatest likelihood that the project will be*  
21                           *maintained or expanded after Federal as-*  
22                           *sistance under this subsection is completed;*

23                           (iv) *represent a partnership of public*  
24                           *and private entities; and*



1                   (v) exceed the minimum requirements  
2                   of paragraph (3)(A)(ii).

3           (5) *PILOT PROJECT REQUIREMENTS.*—

4                   (A) *MAXIMUM AMOUNT.*—The Secretary  
5                   shall provide not more than \$20,000,000 in Fed-  
6                   eral assistance under the pilot program to any  
7                   applicant.

8                   (B) *COST SHARING.*—The non-Federal share  
9                   of the cost of any activity relating to renewable  
10                  fuel blend infrastructure development carried out  
11                  using funds from a grant under this subsection  
12                  shall be not less than 20 percent.

13                  (C) *MAXIMUM PERIOD OF GRANTS.*—The  
14                  Secretary shall not provide funds to any appli-  
15                  cant under the pilot program for more than 2  
16                  years.

17                  (D) *DEPLOYMENT AND DISTRIBUTION.*—The  
18                  Secretary shall seek, to the maximum extent  
19                  practicable, to ensure a broad geographic dis-  
20                  tribution of project sites funded by grants under  
21                  this subsection.

22                  (E) *TRANSFER OF INFORMATION AND*  
23                  *KNOWLEDGE.*—The Secretary shall establish  
24                  mechanisms to ensure that the information and  
25                  knowledge gained by participants in the pilot

1        *program are transferred among the pilot pro-*  
2        *gram participants and to other interested par-*  
3        *ties, including other applicants that submitted*  
4        *applications.*

5        (6) *SCHEDULE.—*

6            (A) *INITIAL GRANTS.—*

7                    (i) *IN GENERAL.—Not later than 90*  
8                    *days after the date of enactment of this Act,*  
9                    *the Secretary shall publish in the Federal*  
10                   *Register, Commerce Business Daily, and*  
11                   *such other publications as the Secretary*  
12                   *considers to be appropriate, a notice and re-*  
13                   *quest for applications to carry out projects*  
14                   *under the pilot program.*

15                   (ii) *DEADLINE.—An application de-*  
16                   *scribed in clause (i) shall be submitted to*  
17                   *the Secretary by not later than 180 days*  
18                   *after the date of publication of the notice*  
19                   *under that clause.*

20                   (iii) *INITIAL SELECTION.—Not later*  
21                   *than 90 days after the date by which appli-*  
22                   *cations for grants are due under clause (ii),*  
23                   *the Secretary shall select by competitive,*  
24                   *peer-reviewed proposal up to 5 applications*

1           *for projects to be awarded a grant under the*  
2           *pilot program.*

3           *(B) ADDITIONAL GRANTS.—*

4                   *(i) IN GENERAL.—Not later than 2*  
5                   *years after the date of enactment of this Act,*  
6                   *the Secretary shall publish in the Federal*  
7                   *Register, Commerce Business Daily, and*  
8                   *such other publications as the Secretary*  
9                   *considers to be appropriate, a notice and re-*  
10                  *quest for additional applications to carry*  
11                  *out projects under the pilot program that*  
12                  *incorporate the information and knowledge*  
13                  *obtained through the implementation of the*  
14                  *first round of projects authorized under the*  
15                  *pilot program.*

16                  *(ii) DEADLINE.—An application de-*  
17                  *scribed in clause (i) shall be submitted to*  
18                  *the Secretary by not later than 180 days*  
19                  *after the date of publication of the notice*  
20                  *under that clause.*

21                  *(iii) INITIAL SELECTION.—Not later*  
22                  *than 90 days after the date by which appli-*  
23                  *cations for grants are due under clause (ii),*  
24                  *the Secretary shall select by competitive,*  
25                  *peer-reviewed proposal such additional ap-*

1            *plications for projects to be awarded a*  
2            *grant under the pilot program as the Sec-*  
3            *retary determines to be appropriate.*

4            (7) *REPORTS TO CONGRESS.—*

5            (A) *INITIAL REPORT.—Not later than 60*  
6            *days after the date on which grants are awarded*  
7            *under this subsection, the Secretary shall submit*  
8            *to Congress a report containing—*

9                    (i) *an identification of the grant re-*  
10                  *cipients and a description of the projects to*  
11                  *be funded under the pilot program;*

12                  (ii) *an identification of other appli-*  
13                  *cants that submitted applications for the*  
14                  *pilot program but to which funding was not*  
15                  *provided; and*

16                  (iii) *a description of the mechanisms*  
17                  *used by the Secretary to ensure that the in-*  
18                  *formation and knowledge gained by partici-*  
19                  *pants in the pilot program are transferred*  
20                  *among the pilot program participants and*  
21                  *to other interested parties, including other*  
22                  *applicants that submitted applications.*

23            (B) *EVALUATION.—Not later than 2 years*  
24            *after the date of enactment of this Act, and an-*  
25            *nually thereafter until the termination of the*

1        *pilot program, the Secretary shall submit to*  
 2        *Congress a report containing an evaluation of*  
 3        *the effectiveness of the pilot program, including*  
 4        *an assessment of the petroleum displacement and*  
 5        *benefits to the environment derived from the*  
 6        *projects included in the pilot program.*

7        *(e) RESTRICTION.—No grant shall be provided under*  
 8        *subsection (b) or (c) to a large, vertically integrated oil com-*  
 9        *pany.*

10       *(f) AUTHORIZATION OF APPROPRIATIONS.—There are*  
 11       *authorized to be appropriated to the Secretary for carrying*  
 12       *out this section \$200,000,000 for each of the fiscal years*  
 13       *2008 through 2014.*

14       **SEC. 245. STUDY OF THE ADEQUACY OF TRANSPORTATION**  
 15                                **OF DOMESTICALLY-PRODUCED RENEWABLE**  
 16                                **FUEL BY RAILROADS AND OTHER MODES OF**  
 17                                **TRANSPORTATION.**

18        *(a) STUDY.—*

19                *(1) IN GENERAL.—The Secretary, in coordina-*  
 20        *tion with the Secretary of Transportation, shall joint-*  
 21        *ly conduct a study of the adequacy of transportation*  
 22        *of domestically-produced renewable fuels by railroad*  
 23        *and other modes of transportation as designated by*  
 24        *the Secretaries.*

1           (2) *COMPONENTS.—In conducting the study*  
2           *under paragraph (1), the Secretaries shall—*

3                   (A) *consider the adequacy of existing rail-*  
4                   *road and other transportation and distribution*  
5                   *infrastructure, equipment, service and capacity*  
6                   *to move the necessary quantities of domestically-*  
7                   *produced renewable fuel within the timeframes;*

8                   (B)(i) *consider the projected costs of moving*  
9                   *the domestically-produced renewable fuel by rail-*  
10                   *road and other modes transportation; and*

11                   (ii) *consider the impact of the projected*  
12                   *costs on the marketability of the domestically-*  
13                   *produced renewable fuel;*

14                   (C) *identify current and potential impedi-*  
15                   *ments to the reliable transportation and dis-*  
16                   *tribution of adequate supplies of domestically-*  
17                   *produced renewable fuel at reasonable prices, in-*  
18                   *cluding practices currently utilized by domestic*  
19                   *producers, shippers, and receivers of renewable*  
20                   *fuels;*

21                   (D) *consider whether adequate competition*  
22                   *exists within and between modes of transpor-*  
23                   *tation for the transportation and distribution of*  
24                   *domestically-produced renewable fuel and, wheth-*  
25                   *er inadequate competition leads to an unfair*

1       *price for the transportation and distribution of*  
2       *domestically-produced renewable fuel or unac-*  
3       *ceptable service for transportation of domesti-*  
4       *cally-produced renewable fuel;*

5               *(E) consider whether Federal agencies have*  
6       *adequate legal authority to address instances of*  
7       *inadequate competition when inadequate com-*  
8       *petition is found to prevent domestic producers*  
9       *for renewable fuels from obtaining a fair and*  
10       *reasonable transportation price or acceptable*  
11       *service for the transportation and distribution of*  
12       *domestically-produced renewable fuels;*

13               *(F) consider whether Federal agencies have*  
14       *adequate legal authority to address railroad and*  
15       *transportation service problems that may be re-*  
16       *sulting in inadequate supplies of domestically-*  
17       *produced renewable fuel in any area of the*  
18       *United States;*

19               *(G) consider what transportation infra-*  
20       *structure capital expenditures may be necessary*  
21       *to ensure the reliable transportation of adequate*  
22       *supplies of domestically-produced renewable fuel*  
23       *at reasonable prices within the United States*  
24       *and which public and private entities should be*  
25       *responsible for making such expenditures; and*

1                   (H) provide recommendations on ways to  
 2                   facilitate the reliable transportation of adequate  
 3                   supplies of domestically-produced renewable fuel  
 4                   at reasonable prices.

5           (b) *REPORT*.—Not later than 180 days after the date  
 6 of enactment of this Act, the Secretaries shall jointly submit  
 7 to the Committee on Commerce, Science and Transpor-  
 8 tation, the Committee on Energy and Natural Resources,  
 9 and the Committee on Environment and Public Works of  
 10 the Senate and the Committee on Transportation and In-  
 11 frastructure and the Committee on Energy and Commerce  
 12 of the House of Representatives a report that describes the  
 13 results of the study conducted under subsection (a).

14 **SEC. 246. FEDERAL FLEET FUELING CENTERS.**

15           (a) *IN GENERAL*.—Not later than January 1, 2010,  
 16 the head of each Federal agency shall install at least 1 re-  
 17 newable fuel pump at each Federal fleet fueling center in  
 18 the United States under the jurisdiction of the head of the  
 19 Federal agency.

20           (b) *REPORT*.—Not later than October 31 of the first  
 21 calendar year beginning after the date of the enactment of  
 22 this Act, and each October 31 thereafter, the President shall  
 23 submit to Congress a report that describes the progress to-  
 24 ward complying with subsection (a), including  
 25 identifying—



1           (1) *the number of Federal fleet fueling centers*  
 2           *that contain at least 1 renewable fuel pump; and*

3           (2) *the number of Federal fleet fueling centers*  
 4           *that do not contain any renewable fuel pumps.*

5           (c) *DEPARTMENT OF DEFENSE FACILITY.—This sec-*  
 6           *tion shall not apply to a Department of Defense fueling cen-*  
 7           *ter with a fuel turnover rate of less than 100,000 gallons*  
 8           *of fuel per year.*

9           (d) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
 10          *authorized to be appropriated such sums as are necessary*  
 11          *to carry out this section.*

12   **SEC. 247. STANDARD SPECIFICATIONS FOR BIODIESEL.**

13          *Section 211 of the Clean Air Act (42 U.S.C. 7545) is*  
 14          *amended by redesignating subsection (s) as subsection (t),*  
 15          *redesignating subsection (r) (relating to conversion assist-*  
 16          *ance for cellulosic biomass, waste-derived ethanol, approved*  
 17          *renewable fuels) as subsection (s) and by adding the fol-*  
 18          *lowing new subsection at the end thereof:*

19          “(u) *STANDARD SPECIFICATIONS FOR BIODIESEL.—*  
 20          (1) *Unless the American Society for Testing and Materials*  
 21          *has adopted a standard for diesel fuel containing 20 percent*  
 22          *biodiesel (commonly known as ‘B20’) within 1 year after*  
 23          *the date of enactment of this subsection, the Administrator*  
 24          *shall initiate a rulemaking to establish a uniform per gal-*  
 25          *lon fuel standard for such fuel and designate an identifica-*

1 *tion number so that vehicle manufacturers are able to de-*  
2 *sign engines to use fuel meeting such standard.*

3       “(2) *Unless the American Society for Testing and Ma-*  
4 *terials has adopted a standard for diesel fuel containing*  
5 *5 percent biodiesel (commonly known as ‘B5’) within 1 year*  
6 *after the date of enactment of this subsection, the Adminis-*  
7 *trator shall initiate a rulemaking to establish a uniform*  
8 *per gallon fuel standard for such fuel and designate an*  
9 *identification so that vehicle manufacturers are able to de-*  
10 *sign engines to use fuel meeting such standard.*

11       “(3) *Whenever the Administrator is required to ini-*  
12 *tiate a rulemaking under paragraph (1) or (2), the Admin-*  
13 *istrator shall promulgate a final rule within 18 months*  
14 *after the date of the enactment of this subsection.*

15       “(4) *Not later than 180 days after the enactment of*  
16 *this subsection, the Administrator shall establish an annual*  
17 *inspection and enforcement program to ensure that diesel*  
18 *fuel containing biodiesel sold or distributed in interstate*  
19 *commerce meets the standards established under regulations*  
20 *under this section, including testing and certification for*  
21 *compliance with applicable standards of the American So-*  
22 *ciety for Testing and Materials. There are authorized to be*  
23 *appropriated to carry out the inspection and enforcement*  
24 *program under this paragraph \$3,000,000 for each of fiscal*  
25 *years 2008 through 2010.*

1       “(5) *For purposes of this subsection, the term ‘bio-*  
 2 *diesel’ has the meaning provided by section 312(f) of Energy*  
 3 *Policy Act of 1992 (42 U.S.C. 13220(f)).”.*

4   **SEC. 248. BIOFUELS DISTRIBUTION AND ADVANCED**  
 5                   **BIOFUELS INFRASTRUCTURE.**

6       (a) *IN GENERAL.*—*The Secretary, in coordination*  
 7 *with the Secretary of Transportation and in consultation*  
 8 *with the Administrator of the Environmental Protection*  
 9 *Agency, shall carry out a program of research, development,*  
 10 *and demonstration relating to existing transportation fuel*  
 11 *distribution infrastructure and new alternative distribution*  
 12 *infrastructure.*

13       (b) *FOCUS.*—*The program described in subsection (a)*  
 14 *shall focus on the physical and chemical properties of*  
 15 *biofuels and efforts to prevent or mitigate against adverse*  
 16 *impacts of those properties in the areas of—*

17               (1) *corrosion of metal, plastic, rubber, cork, fi-*  
 18               *berglass, glues, or any other material used in pipes*  
 19               *and storage tanks;*

20               (2) *dissolving of storage tank sediments;*

21               (3) *clogging of filters;*

22               (4) *contamination from water or other*  
 23               *adulterants or pollutants;*

24               (5) *poor flow properties related to low tempera-*  
 25               *tures;*

- 1           (6) *oxidative and thermal instability in long-*  
2       *term storage and uses;*  
3           (7) *microbial contamination;*  
4           (8) *problems associated with electrical conduc-*  
5       *tivity; and*  
6           (9) *such other areas as the Secretary considers*  
7       *appropriate.*

8                   ***Subtitle D—Environmental***  
9                   ***Safeguards***

10 ***SEC. 251. WAIVER FOR FUEL OR FUEL ADDITIVES.***

11       *Section 211(f)(4) of the Clean Air Act (42 U.S.C.*  
12 *7545(f)) is amended to read as follows:*

13       *“(4) The Administrator, upon application of any*  
14 *manufacturer of any fuel or fuel additive, may waive the*  
15 *prohibitions established under paragraph (1) or (3) of this*  
16 *subsection or the limitation specified in paragraph (2) of*  
17 *this subsection, if he determines that the applicant has es-*  
18 *tablished that such fuel or fuel additive or a specified con-*  
19 *centration thereof, and the emission products of such fuel*  
20 *or fuel additive or specified concentration thereof, will not*  
21 *cause or contribute to a failure of any emission control de-*  
22 *vice or system (over the useful life of the motor vehicle,*  
23 *motor vehicle engine, nonroad engine or nonroad vehicle in*  
24 *which such device or system is used) to achieve compliance*  
25 *by the vehicle or engine with the emission standards with*

1 *respect to which it has been certified pursuant to sections*  
 2 *206 and 213(a). The Administrator shall take final action*  
 3 *to grant or deny an application submitted under this para-*  
 4 *graph, after public notice and comment, within 270 days*  
 5 *of the receipt of such an application.”.*

6 ***TITLE III—ENERGY SAVINGS***  
 7 ***THROUGH IMPROVED STAND-***  
 8 ***ARDS FOR APPLIANCE AND***  
 9 ***LIGHTING***

10 ***Subtitle A—Appliance Energy***  
 11 ***Efficiency***

12 ***SEC. 301. EXTERNAL POWER SUPPLY EFFICIENCY STAND-***  
 13 ***ARDS.***

14 *(a) DEFINITIONS.—Section 321 of the Energy Policy*  
 15 *and Conservation Act (42 U.S.C. 6291) is amended—*

16 *(1) in paragraph (36)—*

17 *(A) by striking “(36) The” and inserting*  
 18 *the following:*

19 *“(36) EXTERNAL POWER SUPPLY.—*

20 *“(A) IN GENERAL.—The”; and*

21 *(B) by adding at the end the following:*

22 *“(B) ACTIVE MODE.—The term ‘active*  
 23 *mode’ means the mode of operation when an ex-*  
 24 *ternal power supply is connected to the main*

1       *electricity supply and the output is connected to*  
 2       *a load.*

3               “(C) *CLASS A EXTERNAL POWER SUPPLY.*—

4               “(i) *IN GENERAL.*—*The term ‘class A*  
 5       *external power supply’ means a device*  
 6       *that—*

7               “(I) *is designed to convert line*  
 8       *voltage AC input into lower voltage AC*  
 9       *or DC output;*

10              “(II) *is able to convert to only 1*  
 11       *AC or DC output voltage at a time;*

12              “(III) *is sold with, or intended to*  
 13       *be used with, a separate end-use prod-*  
 14       *uct that constitutes the primary load;*

15              “(IV) *is contained in a separate*  
 16       *physical enclosure from the end-use*  
 17       *product;*

18              “(V) *is connected to the end-use*  
 19       *product via a removable or hard-wired*  
 20       *male/female electrical connection, cable,*  
 21       *cord, or other wiring; and*

22              “(VI) *has nameplate output power*  
 23       *that is less than or equal to 250 watts.*

1           “(ii) *EXCLUSIONS.*—The term ‘class A  
2           external power supply’ does not include any  
3           device that—

4                   “(I) requires Federal Food and  
5                   Drug Administration listing and ap-  
6                   proval as a medical device in accord-  
7                   ance with section 513 of the Federal  
8                   Food, Drug, and Cosmetic Act (21  
9                   U.S.C. 360c); or

10                   “(II) powers the charger of a de-  
11                   tachable battery pack or charges the  
12                   battery of a product that is fully or  
13                   primarily motor operated.

14           “(D) *NO-LOAD MODE.*—The term ‘no-load  
15           mode’ means the mode of operation when an ex-  
16           ternal power supply is connected to the main  
17           electricity supply and the output is not con-  
18           nected to a load.”; and

19           (2) by adding at the end the following:

20                   “(52) *DETACHABLE BATTERY.*—The term ‘de-  
21           tachable battery’ means a battery that is—

22                   “(A) contained in a separate enclosure from  
23                   the product; and

24                   “(B) intended to be removed or disconnected  
25                   from the product for recharging.”.

1       (b) *TEST PROCEDURES.*—Section 323(b) of the Energy  
 2   Policy and Conservation Act (42 U.S.C. 6293(b)) is amend-  
 3   ed by adding at the end the following:

4               “(17) *CLASS A EXTERNAL POWER SUPPLIES.*—  
 5       Test procedures for class A external power supplies  
 6       shall be based on the ‘Test Method for Calculating the  
 7       Energy Efficiency of Single-Voltage External AC–DC  
 8       and AC–AC Power Supplies’ published by the Envi-  
 9       ronmental Protection Agency on August 11, 2004, ex-  
 10      cept that the test voltage specified in section 4(d) of  
 11      that test method shall be only 115 volts, 60 Hz.”.

12       (c) *EFFICIENCY STANDARDS FOR CLASS A EXTERNAL*  
 13   *POWER SUPPLIES.*—Section 325(u) of the Energy Policy  
 14   and Conservation Act (42 U.S.C. 6295(u)) is amended by  
 15   adding at the end the following:

16               “(6) *EFFICIENCY STANDARDS FOR CLASS A EX-*  
 17   *TERNAL POWER SUPPLIES.*—

18               “(A) *IN GENERAL.*—Subject to subpara-  
 19       graphs (B) through (D), a class A external power  
 20       supply manufactured on or after the later of  
 21       July 1, 2008, or the date of enactment of this  
 22       paragraph shall meet the following standards:



<b>“Active Mode</b>	
<b>“Nameplate Output</b>	<b>Required Efficiency (decimal equivalent of a percentage)</b>
<i>Less than 1 watt</i>	<i>0.5 times the Nameplate Output</i>
<i>From 1 watt to not more than 51 watts</i>	<i>The sum of 0.09 times the Natural Logarithm of the Nameplate Output and 0.5</i>
<i>Greater than 51 watts</i>	<i>0.85</i>
<b>“No-Load Mode</b>	
<b>“Nameplate Output</b>	<b>Maximum Consumption</b>
<i>Not more than 250 watts</i>	<i>0.5 watts</i>

1                   “(B) *NONCOVERED SUPPLIES.*—*A class A*  
2                   *external power supply shall not be subject to sub-*  
3                   *paragraph (A) if the class A external power sup-*  
4                   *ply is—*

5                   “(i) *manufactured during the period*  
6                   *beginning on July 1, 2008, and ending on*  
7                   *June 30, 2015; and*

8                   “(ii) *made available by the manufac-*  
9                   *turer as a service part or a spare part for*  
10                  *an end-use product—*

11                  “(I) *that constitutes the primary*  
12                  *load; and*

13                  “(II) *was manufactured before*  
14                  *July 1, 2008.*

15                  “(C) *MARKING.*—*Any class A external*  
16                  *power supply manufactured on or after the later*  
17                  *of July 1, 2008 or the date of enactment of this*

1        *paragraph shall be clearly and permanently*  
 2        *marked in accordance with the External Power*  
 3        *Supply International Efficiency Marking Pro-*  
 4        *TOCOL, as referenced in the ‘Energy Star Program*  
 5        *Requirements for Single Voltage External AC–*  
 6        *DC and AC–AC Power Supplies, version 1.1’*  
 7        *published by the Environmental Protection*  
 8        *Agency.*

9                *“(D) AMENDMENT OF STANDARDS.—*

10                *“(i) FINAL RULE BY JULY 1, 2011.—*

11                *“(I) IN GENERAL.—Not later than*  
 12                *July 1, 2011, the Secretary shall pub-*  
 13                *lish a final rule to determine whether*  
 14                *the standards established under sub-*  
 15                *paragraph (A) should be amended.*

16                *“(II)        ADMINISTRATION.—The*  
 17                *final rule shall—*

18                *“(aa) contain any amended*  
 19                *standards; and*

20                *“(bb) apply to products man-*  
 21                *ufactured on or after July 1,*  
 22                *2013.*

23                *“(ii) FINAL RULE BY JULY 1, 2015.—*

24                *“(I) IN GENERAL.—Not later than*  
 25                *July 1, 2015 the Secretary shall pub-*

1                    *lish a final rule to determine whether*  
 2                    *the standards then in effect should be*  
 3                    *amended.*

4                    “(II)        *ADMINISTRATION.—The*  
 5                    *final rule shall—*

6                    “(aa) *contain any amended*  
 7                    *standards; and*

8                    “(bb) *apply to products man-*  
 9                    *ufactured on or after July 1,*  
 10                    *2017.*

11                    “(7) *END-USE PRODUCTS.—An energy conserva-*  
 12                    *tion standard for external power supplies shall not*  
 13                    *constitute an energy conservation standard for the*  
 14                    *separate end-use product to which the external power*  
 15                    *supplies is connected.”.*

16    **SEC. 302. UPDATING APPLIANCE TEST PROCEDURES.**

17                    (a) *CONSUMER APPLIANCES.—Section 323(b)(1) of the*  
 18                    *Energy Policy and Conservation Act (42 U.S.C. 6293(b)(1))*  
 19                    *is amended by striking “(1)” and all that follows through*  
 20                    *the end of the paragraph and inserting the following:*

21                    “(1) *TEST PROCEDURES.—*

22                    “(A) *AMENDMENT.—At least once every 7*  
 23                    *years, the Secretary shall review test procedures*  
 24                    *for all covered products and—*

1                   “(i) amend test procedures with respect  
 2                   to any covered product, if the Secretary de-  
 3                   termines that amended test procedures  
 4                   would more accurately or fully comply with  
 5                   the requirements of paragraph (3); or

6                   “(ii) publish notice in the Federal Reg-  
 7                   ister of any determination not to amend a  
 8                   test procedure.”.

9           (b) *INDUSTRIAL EQUIPMENT*.—Section 343(a) of the  
 10 *Energy Policy and Conservation Act* (42 U.S.C. 6313(a))  
 11 is amended by striking “(a)” and all that follows through  
 12 the end of paragraph (1) and inserting the following:

13           “(a) *PRESCRIPTION BY SECRETARY; REQUIRE-*  
 14 *MENTS*.—

15                   “(1) *TEST PROCEDURES*.—

16                   “(A) *AMENDMENT*.—At least once every 7  
 17 years, the Secretary shall conduct an evaluation  
 18 of each class of covered equipment and—

19                   “(i) if the Secretary determines that  
 20 amended test procedures would more accu-  
 21 rately or fully comply with the requirements  
 22 of paragraphs (2) and (3), shall prescribe  
 23 test procedures for the class in accordance  
 24 with this section; or

1                   “(ii) shall publish notice in the Federal  
2                   Register of any determination not to amend  
3                   a test procedure.”.

4   **SEC. 303. RESIDENTIAL BOILERS.**

5       Section 325(f) of the Energy Policy and Conservation  
6 Act (42 U.S.C. 6295(f)) is amended—

7           (1) in the subsection heading, by inserting “AND  
8       BOILERS” after “FURNACES”;

9           (2) by redesignating paragraph (3) as para-  
10 graph (4); and

11          (3) by inserting after paragraph (2) the fol-  
12 lowing:

13           “(3) BOILERS.—

14           “(A) IN GENERAL.—Subject to subpara-  
15 graphs (B) and (C), boilers manufactured on or  
16 after September 1, 2012, shall meet the following  
17 requirements:

<i>Boiler Type</i>	<i>Minimum Annual Fuel Utilization Efficiency</i>	<i>Design Requirements</i>
<i>Gas Hot Water .....</i>	82%	<i>No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature</i>
<i>Gas Steam .....</i>	80%	<i>No Constant Burning Pilot</i>
<i>Oil Hot Water .....</i>	84%	<i>Automatic Means for Adjusting Temperature</i>

<i>Boiler Type</i>	<i>Minimum Annual Fuel Utilization Efficiency</i>	<i>Design Requirements</i>
<i>Oil Steam .....</i>	<i>82%</i>	<i>None</i>
<i>Electric Hot Water .....</i>	<i>None</i>	<i>Automatic Means for Adjusting Temperature</i>
<i>Electric Steam .....</i>	<i>None</i>	<i>None</i>

1                   “(B) *AUTOMATIC MEANS FOR ADJUSTING*  
2                   *WATER TEMPERATURE.—*

3                   “(i) *IN GENERAL.—The manufacturer*  
4                   *shall equip each gas, oil, and electric hot*  
5                   *water boiler (other than a boiler equipped*  
6                   *with a tankless domestic water heating coil)*  
7                   *with automatic means for adjusting the*  
8                   *temperature of the water supplied by the*  
9                   *boiler to ensure that an incremental change*  
10                  *in inferred heat load produces a cor-*  
11                  *responding incremental change in the tem-*  
12                  *perature of water supplied.*

13                  “(ii) *SINGLE INPUT RATE.—For a boil-*  
14                  *er that fires at 1 input rate, the require-*  
15                  *ments of this subparagraph may be satisfied*  
16                  *by providing an automatic means that al-*  
17                  *lows the burner or heating element to fire*  
18                  *only when the means has determined that*  
19                  *the inferred heat load cannot be met by the*  
20                  *residual heat of the water in the system.*

1                   “(iii) *NO INFERRED HEAT LOAD.*—  
 2                   *When there is no inferred heat load with re-*  
 3                   *spect to a hot water boiler, the automatic*  
 4                   *means described in clause (i) and (ii) shall*  
 5                   *limit the temperature of the water in the*  
 6                   *boiler to not more than 140 degrees Fahr-*  
 7                   *enheit.*

8                   “(iv) *OPERATION.*—*A boiler described*  
 9                   *in clause (i) or (ii) shall be operable only*  
 10                  *when the automatic means described in*  
 11                  *clauses (i), (ii), and (iii) is installed.*

12                  “(C) *EXCEPTION.*—*A boiler that is manu-*  
 13                  *factured to operate without any need for elec-*  
 14                  *tricity or any electric connection, electric gauges,*  
 15                  *electric pumps, electric wires, or electric devices*  
 16                  *shall not be required to meet the requirements of*  
 17                  *this paragraph.”.*

18 **SEC. 304. FURNACE FAN STANDARD PROCESS.**

19                  *Paragraph (4)(D) of section 325(f) of the Energy Pol-*  
 20                  *icy and Conservation Act (42 U.S.C. 6295(f)) (as redesign-*  
 21                  *ated by section 303(4)) is amended by striking “the Sec-*  
 22                  *retary may” and inserting “not later than December 31,*  
 23                  *2013, the Secretary shall”.*

1 **SEC. 305. IMPROVING SCHEDULE FOR STANDARDS UPDAT-**  
 2 **ING AND CLARIFYING STATE AUTHORITY.**

3 (a) *CONSUMER APPLIANCES.*—Section 325 of the En-  
 4 *ergy Policy and Conservation Act* (42 U.S.C. 6295) is  
 5 *amended by striking subsection (m) and inserting the fol-*  
 6 *lowing:*

7 “(m) *AMENDMENT OF STANDARDS.*—

8 “(1) *IN GENERAL.*—Not later than 6 years after  
 9 *issuance of any final rule establishing or amending a*  
 10 *standard, as required for a product under this part,*  
 11 *the Secretary shall publish—*

12 “(A) *a notice of the determination of the*  
 13 *Secretary that standards for the product do not*  
 14 *need to be amended, based on the criteria estab-*  
 15 *lished under subsection (n)(2); or*

16 “(B) *a notice of proposed rulemaking in-*  
 17 *cluding new proposed standards based on the cri-*  
 18 *teria established under subsection (o) and the*  
 19 *procedures established under subsection (p).*

20 “(2) *NOTICE.*—If the Secretary publishes a no-  
 21 *tice under paragraph (1), the Secretary shall—*

22 “(A) *publish a notice stating that the anal-*  
 23 *ysis of the Department is publicly available; and*

24 “(B) *provide an opportunity for written*  
 25 *comment.*



1           “(3) *AMENDMENT OF STANDARD; NEW DETER-*  
2           *MINATION.*—

3                   “(A) *AMENDMENT OF STANDARD.*—*Not later*  
4                   *than 2 years after a notice is issued under para-*  
5                   *graph (1)(B), the Secretary shall publish a final*  
6                   *rule amending the standard for the product.*

7                   “(B) *NEW DETERMINATION.*—*Not later than*  
8                   *3 years after a determination under paragraph*  
9                   *(1)(A), the Secretary shall make a new deter-*  
10                  *mination and publication under subparagraph*  
11                  *(A) or (B) of paragraph (1).*

12           “(4) *APPLICATION TO PRODUCTS.*—

13                   “(A) *IN GENERAL.*—*Except as provided in*  
14                   *subparagraph (B), an amendment prescribed*  
15                   *under this subsection shall apply to—*

16                           “(i) *with respect to refrigerators, re-*  
17                           *frigerator-freezers, freezers, room air condi-*  
18                           *tioners, dishwashers, clothes washers, clothes*  
19                           *dryers, fluorescent lamp ballasts, and kitch-*  
20                           *en ranges and ovens, such a product that is*  
21                           *manufactured after the date that is 3 years*  
22                           *after publication of the final rule estab-*  
23                           *lishing an applicable standard; and*

24                           “(ii) *with respect to central air condi-*  
25                           *tioners, heat pumps, water heaters, pool*

1           *heaters, direct heating equipment, and fur-*  
 2           *naces, such a product that is manufactured*  
 3           *after the date that is 5 years after publica-*  
 4           *tion of the final rule establishing an appli-*  
 5           *cable standard.*

6           “(B) *OTHER NEW STANDARDS.*—*A manu-*  
 7           *facturer shall not be required to apply new*  
 8           *standards to a product with respect to which*  
 9           *other new standards have been required during*  
 10          *the prior 6-year period.*

11          “(5) *REPORTS.*—*The Secretary shall promptly*  
 12          *submit to the Committee on Energy and Commerce of*  
 13          *the House of Representatives and the Committee on*  
 14          *Energy and Natural Resources of the Senate—*

15               “(A) *a progress report every 180 days on*  
 16               *compliance with this section, including a specific*  
 17               *plan to remedy any failures to comply with*  
 18               *deadlines for action established under this sec-*  
 19               *tion; and*

20               “(B) *all required reports to the Court or to*  
 21               *any party to the Consent Decree in State of New*  
 22               *York v Bodman, Consolidated Civil Actions No.*  
 23               *05 Civ. 7807 and No. 05 Civ. 7808.”.*

1       (b) *INDUSTRIAL EQUIPMENT*.—Section 342(a)(6) of  
 2   the *Energy Policy and Conservation Act* (42 U.S.C.  
 3   6313(a)(6)) is amended—

4               (1) by redesignating subparagraph (C) as sub-  
 5   paragraph (D); and

6               (2) by striking “(6)(A)(i)” and all that follows  
 7   through the end of subparagraph (B) and inserting  
 8   the following:

9               “(6) *AMENDED ENERGY EFFICIENCY STAND-*  
 10   *ARDS*.—

11               “(A) *IN GENERAL*.—

12               “(i) *ANALYSIS OF POTENTIAL ENERGY*  
 13   *SAVINGS*.—If *ASHRAE/IES Standard 90.1*  
 14   is amended with respect to any small com-  
 15   mercial package air conditioning and heat-  
 16   ing equipment, large commercial package  
 17   air conditioning and heating equipment,  
 18   very large commercial package air condi-  
 19   tioning and heating equipment, packaged  
 20   terminal air conditioners, packaged ter-  
 21   minal heat pumps, warm-air furnaces,  
 22   packaged boilers, storage water heaters, in-  
 23   stantaneous water heaters, or unfired hot  
 24   water storage tanks, not later than 180 days  
 25   after the amendment of the standard, the

1            *Secretary shall publish in the Federal Reg-*  
 2            *ister for public comment an analysis of the*  
 3            *energy savings potential of amended energy*  
 4            *efficiency standards.*

5            “(ii) *AMENDED UNIFORM NATIONAL*  
 6            *STANDARD FOR PRODUCTS.—*

7                    “(I) *IN GENERAL.—Except as pro-*  
 8                    *vided in subclause (II), not later than*  
 9                    *18 months after the date of publication*  
 10                   *of the amendment to the ASHRAE/*  
 11                   *IES Standard 90.1 for a product de-*  
 12                   *scribed in clause (i), the Secretary*  
 13                   *shall establish an amended uniform*  
 14                   *national standard for the product at*  
 15                   *the minimum level specified in the*  
 16                   *amended ASHRAE/IES Standard*  
 17                   *90.1.*

18                   “(II) *MORE STRINGENT STAND-*  
 19                   *ARD.—Subclause (I) shall not apply if*  
 20                   *the Secretary determines, by rule pub-*  
 21                   *lished in the Federal Register, and*  
 22                   *supported by clear and convincing evi-*  
 23                   *dence, that adoption of a uniform na-*  
 24                   *tional standard more stringent than*  
 25                   *the amended ASHRAE/IES Standard*

1                   90.1 for the product would result in  
 2                   significant additional conservation of  
 3                   energy and is technologically feasible  
 4                   and economically justified.

5                   “(B) *RULE.*—If the Secretary makes a de-  
 6                   termination described in clause (ii)(II) for a  
 7                   product described in clause (i), not later than 30  
 8                   months after the date of publication of the  
 9                   amendment to the ASHRAE/IES Standard 90.1  
 10                  for the product, the Secretary shall issue the rule  
 11                  establishing the amended standard.

12                  “(C) *AMENDMENT OF STANDARD.*—

13                         “(i) *IN GENERAL.*—Not later than 6  
 14                         years after issuance of any final rule estab-  
 15                         lishing or amending a standard, as required  
 16                         for a product under this part, the Secretary  
 17                         shall publish—

18                                 “(I) a notice of the determination  
 19                                 of the Secretary that standards for the  
 20                                 product do not need to be amended,  
 21                                 based on the criteria established under  
 22                                 subparagraph (A); or

23                                 “(II) a notice of proposed rule-  
 24                                 making including new proposed stand-  
 25                                 ards based on the criteria and proce-

1                   dures established under subparagraph  
2                   (B).

3                   “(ii) NOTICE.—If the Secretary pub-  
4                   lishes a notice under clause (i), the Sec-  
5                   retary shall—

6                               “(I) publish a notice stating that  
7                               the analysis of the Department is pub-  
8                               licly available; and

9                               “(II) provide an opportunity for  
10                              written comment.

11                   “(iii) AMENDMENT OF STANDARD; NEW  
12                   DETERMINATION.—

13                               “(I) AMENDMENT OF STAND-  
14                               ARD.—Not later than 2 years after a  
15                               notice is issued under clause (i)(II),  
16                               the Secretary shall publish a final rule  
17                               amending the standard for the product.

18                               “(II) NEW DETERMINATION.—Not  
19                               later than 3 years after a determina-  
20                               tion under clause (i)(I), the Secretary  
21                               shall make a new determination and  
22                               publication under subclause (I) or (II)  
23                               of clause (i).

24                   “(iv) APPLICATION TO PRODUCTS.—An  
25                   amendment prescribed under this subsection

1           *shall apply to products manufactured after*  
 2           *a date that is the later of—*

3                   “(I) *the date that is 3 years after*  
 4                   *publication of the final rule estab-*  
 5                   *lishing a new standard; or*

6                   “(II) *the date that is 6 years after*  
 7                   *the effective date of the current stand-*  
 8                   *ard for a covered product.*

9                   “(v) *REPORTS.—The Secretary shall*  
 10                   *promptly submit to the Committee on En-*  
 11                   *ergy and Commerce of the House of Rep-*  
 12                   *resentatives and the Committee on Energy*  
 13                   *and Natural Resources of the Senate a*  
 14                   *progress report every 180 days on compli-*  
 15                   *ance with this subparagraph, including a*  
 16                   *specific plan to remedy any failures to com-*  
 17                   *ply with deadlines for action established*  
 18                   *under this subparagraph.”.*

19   **SEC. 306. REGIONAL STANDARDS FOR FURNACES, CENTRAL**  
 20                   **AIR CONDITIONERS, AND HEAT PUMPS.**

21           (a) *IN GENERAL.—Section 325(o) of the Energy Policy*  
 22           *and Conservation Act (42 U.S.C. 6295(o)) is amended by*  
 23           *adding at the end the following:*

24                   “(6) *REGIONAL STANDARDS FOR FURNACES, CEN-*  
 25                   *TRAL AIR CONDITIONERS, AND HEAT PUMPS.—*

1           “(A) *IN GENERAL.*—*In any rulemaking to*  
 2           *establish a new or amended standard, the Sec-*  
 3           *retary may consider the establishment of sepa-*  
 4           *rate standards by geographic region for furnaces*  
 5           *(except boilers), central air conditioners, and*  
 6           *heat pumps.*

7           “(B) *NATIONAL AND REGIONAL STAND-*  
 8           *ARDS.*—

9           “(i) *NATIONAL STANDARD.*—*If the Sec-*  
 10          *retary establishes a regional standard for a*  
 11          *product, the Secretary shall establish a base*  
 12          *national standard for the product.*

13          “(ii) *REGIONAL STANDARDS.*—*If the*  
 14          *Secretary establishes a regional standard*  
 15          *for a product, the Secretary may establish*  
 16          *more restrictive standards for the product*  
 17          *by geographic region as follows:*

18               “(I) *For furnaces, the Secretary*  
 19               *may establish 1 additional standard*  
 20               *that is applicable in a geographic re-*  
 21               *gion defined by the Secretary.*

22               “(II) *For any cooling product, the*  
 23               *Secretary may establish 1 or 2 addi-*  
 24               *tional standards that are applicable in*



1                   1 or 2 geographic regions as may be  
2                   defined by the Secretary.

3                   “(C) *BOUNDARIES OF GEOGRAPHIC RE-*  
4                   *GIONS.*—

5                   “(i) *IN GENERAL.*—Subject to clause  
6                   (ii), the boundaries of additional geographic  
7                   regions established by the Secretary under  
8                   this paragraph shall include only contig-  
9                   uous States.

10                  “(ii) *ALASKA AND HAWAII.*—The States  
11                  of Alaska and Hawaii may be included  
12                  under this paragraph in a geographic re-  
13                  gion that the States are not contiguous to.

14                  “(iii) *INDIVIDUAL STATES.*—Indi-  
15                  vidual States shall be placed only into a  
16                  single region under this paragraph.

17                  “(D) *PREREQUISITES.*—In establishing ad-  
18                  ditional regional standards under this para-  
19                  graph, the Secretary shall—

20                  “(i) establish additional regional  
21                  standards only if the Secretary determines  
22                  that—

23                         “(I) the establishment of addi-  
24                         tional regional standards will produce  
25                         significant energy savings in compari-

1                   son to establishing only a single na-  
2                   tional standard; and

3                   “(II) the additional regional  
4                   standards are economically justified  
5                   under this paragraph; and

6                   “(ii) consider the impact of the addi-  
7                   tional regional standards on consumers,  
8                   manufacturers, and other market partici-  
9                   pants, including product distributors, deal-  
10                  ers, contractors, and installers.

11               “(E) APPLICATION; EFFECTIVE DATE.—

12               “(i) BASE NATIONAL STANDARD.—Any  
13               base national standard established for a  
14               product under this paragraph shall—

15               “(I) be the minimum standard for  
16               the product; and

17               “(II) apply to all products manu-  
18               factured or imported into the United  
19               States on and after the effective date  
20               for the standard.

21               “(ii) REGIONAL STANDARDS.—Any ad-  
22               ditional and more restrictive regional  
23               standard established for a product under  
24               this paragraph shall apply to any such  
25               product installed on or after the effective

1           *date of the standard in States in which the*  
 2           *Secretary has designated the standard to*  
 3           *apply.*

4           “(F) *CONTINUATION OF REGIONAL STAND-*  
 5           *ARDS.—*

6                   “(i) *IN GENERAL.—In any subsequent*  
 7                   *rulemaking for any product for which a re-*  
 8                   *gional standard has been previously estab-*  
 9                   *lished, the Secretary shall determine wheth-*  
 10                   *er to continue the establishment of separate*  
 11                   *regional standards for the product.*

12                   “(ii) *REGIONAL STANDARD NO LONGER*  
 13                   *APPROPRIATE.—Except as provided in*  
 14                   *clause (iii), if the Secretary determines that*  
 15                   *regional standards are no longer appro-*  
 16                   *priate for a product, beginning on the effec-*  
 17                   *tive date of the amended standard for the*  
 18                   *product—*

19                           “(I) *there shall be 1 base national*  
 20                           *standard for the product with Federal*  
 21                           *enforcement; and*

22                           “(II) *State authority for enforcing*  
 23                           *a regional standard for the product*  
 24                           *shall terminate.*

1                   “(iii) *REGIONAL STANDARD APPRO-*  
 2                   *PRIATE BUT STANDARD OR REGION*  
 3                   *CHANGED.—*

4                   “(I) *STATE NO LONGER CON-*  
 5                   *TAINED IN REGION.—Subject to sub-*  
 6                   *clause (III), if a State is no longer*  
 7                   *contained in a region in which a re-*  
 8                   *gional standard that is more stringent*  
 9                   *than the base national standard ap-*  
 10                   *plies, the authority of the State to en-*  
 11                   *force the regional standard shall termi-*  
 12                   *nate.*

13                   “(II) *STANDARD OR REGION RE-*  
 14                   *vised so that existing regional*  
 15                   *standard equals base national*  
 16                   *standard.—If the Secretary revises a*  
 17                   *base national standard for a product*  
 18                   *or the geographic definition of a region*  
 19                   *so that an existing regional standard*  
 20                   *for a State is equal to the revised base*  
 21                   *national standard—*

22                   “(aa) *the authority of the*  
 23                   *State to enforce the regional*  
 24                   *standard shall terminate on the*

1                   *effective date of the revised base*  
 2                   *national standard; and*

3                   “(bb) *the State shall be sub-*  
 4                   *ject to the revised base national*  
 5                   *standard.*

6                   “(III) *STANDARD OR REGION RE-*  
 7                   *VED SO THAT EXISTING REGIONAL*  
 8                   *STANDARD EQUALS BASE NATIONAL*  
 9                   *STANDARD.—If the Secretary revises a*  
 10                   *base national standard for a product*  
 11                   *or the geographic definition of a region*  
 12                   *so that the standard for a State is*  
 13                   *lower than the previously approved re-*  
 14                   *gional standard, the State may con-*  
 15                   *tinue to enforce the previously ap-*  
 16                   *proved standard level.*

17                   “(iv) *WAIVER OF FEDERAL PREEMP-*  
 18                   *TION.—Nothing in this paragraph dimin-*  
 19                   *ishes the authority of a State to enforce a*  
 20                   *State regulation for which a waiver of Fed-*  
 21                   *eral preemption has been granted under sec-*  
 22                   *tion 327(d).*

23                   “(G) *ENFORCEMENT.—*

24                   “(i) *BASE NATIONAL STANDARD.—*

1 “(I) *IN GENERAL.*—*The Secretary*  
 2 *shall enforce any base national stand-*  
 3 *ard.*

4 “(II) *TRADE ASSOCIATION CER-*  
 5 *TIFICATION PROGRAMS.*—*In enforcing*  
 6 *the base national standard, the Sec-*  
 7 *retary shall use, to the maximum ex-*  
 8 *tent practicable, national standard na-*  
 9 *tionally recognized certification pro-*  
 10 *grams of trade associations.*

11 “(ii) *REGIONAL STANDARDS.*—

12 “(I) *ENFORCEMENT PLAN.*—*Not*  
 13 *later than 90 days after the date of the*  
 14 *issuance of a final rule that establishes*  
 15 *a regional standard, the Secretary*  
 16 *shall initiate a rulemaking to develop*  
 17 *and implement an effective enforcement*  
 18 *plan for regional standards for the*  
 19 *products that are covered by the final*  
 20 *rule.*

21 “(II) *RESPONSIBLE ENTITIES.*—  
 22 *Any rules regarding enforcement of a*  
 23 *regional standard shall clearly specify*  
 24 *which entities are legally responsible*  
 25 *for compliance with the standards and*

1           *for making any required information*  
2           *or labeling disclosures.*

3           “(III) *FINAL RULE.*—Not later  
4           *than 15 months after the date of the*  
5           *issuance of a final rule that establishes*  
6           *a regional standard for a product, the*  
7           *Secretary shall promulgate a final rule*  
8           *covering enforcement of regional stand-*  
9           *ards for the product.*

10          “(IV) *INCORPORATION BY STATES*  
11          *AND LOCALITIES.*—A State or locality  
12          *may incorporate any Federal regional*  
13          *standard into State or local building*  
14          *codes or State appliance standards.*

15          “(V) *STATE ENFORCEMENT.*—A  
16          *State agency may seek enforcement of*  
17          *a Federal regional standard in a Fed-*  
18          *eral court of competent jurisdiction.*

19          “(H) *INFORMATION DISCLOSURE.*—

20               “(i) *IN GENERAL.*—Not later than 90  
21               *days after the date of the publication of a*  
22               *final rule that establishes a regional stand-*  
23               *ard for a product, the Federal Trade Com-*  
24               *mission shall undertake a rulemaking to de-*  
25               *termine the appropriate 1 or more methods*

1        *for disclosing information so that con-*  
 2        *sumers, distributors, contractors, and in-*  
 3        *stallers can easily determine whether a spe-*  
 4        *cific piece of equipment that is installed in*  
 5        *a specific building is in conformance with*  
 6        *the regional standard that applies to the*  
 7        *building.*

8                “(ii) *METHODS.*—A method of dis-  
 9        *closing information under clause (i) may*  
 10        *include—*

11                    “(I) *modifications to the Energy*  
 12                    *Guide label; or*

13                    “(II) *other methods that make it*  
 14                    *easy for consumers and installers to*  
 15                    *use and understand at the point of in-*  
 16                    *stallation.*

17                “(iii) *COMPLETION OF RULEMAKING.*—  
 18        *The rulemaking shall be completed not later*  
 19        *15 months after the date of the publication*  
 20        *of a final rule that establishes a regional*  
 21        *standard for a product.”.*

22        (b) *PROHIBITED ACTS.*—Section 332(a) of the *Energy*  
 23        *Policy and Conservation Act (42 U.S.C. 6302(a)) is*  
 24        *amended—*



1           (1) in paragraph (4), by striking “or” after the  
2           semicolon at the end;

3           (2) in paragraph (5), by striking “part.” and  
4           inserting “part, except to the extent that the new cov-  
5           ered product is covered by a regional standard that  
6           is more stringent than the base national standard;  
7           or”; and

8           (3) by adding at the end the following:

9           “(6) for any manufacturer or private labeler to  
10          knowingly sell a product to a distributor, contractor,  
11          or dealer with knowledge that the entity routinely vio-  
12          lates any regional standard applicable to the prod-  
13          uct.”.

14          (c) *CONSIDERATION OF PRICES AND OPERATING PAT-*  
15          *TERNS.*—Section 342(a)(6)(B) of the Energy Policy and  
16          Conservation Act (42 U.S.C. 6313(a)(6)(B)) is amended by  
17          adding at the end the following:

18                       “(iii) *CONSIDERATION OF PRICES AND*  
19                       *OPERATING PATTERNS.*—If the Secretary is  
20                       considering revised standards for air-cooled  
21                       3-phase central air conditioners and central  
22                       air conditioning heat pumps with less  
23                       65,000 Btu per hour (cooling capacity), the  
24                       Secretary shall use commercial energy

1                    *prices and operating patterns in all anal-*  
 2                    *yses conducted by the Secretary.”.*

3    **SEC. 307. PROCEDURE FOR PRESCRIBING NEW OR AMEND-**  
 4                    **ED STANDARDS.**

5            *Section 325(p) of the Energy Policy and Conservation*  
 6    *Act (42 U.S.C. 6925(p)) is amended—*

7                    *(1) by striking paragraph (1); and*

8                    *(2) by redesignating paragraphs (2) through (4)*  
 9                    *as paragraphs (1) through (3), respectively.*

10    **SEC. 308. EXPEDITED RULEMAKINGS.**

11            *(a) PROCEDURE FOR PRESCRIBING NEW OR AMENDED*  
 12    *STANDARDS.—Section 325(p) of the Energy Policy and*  
 13    *Conservation Act (42 U.S.C. 6295(p)) (as amended by sec-*  
 14    *tion 307) is amended by adding at the end the following:*

15                    *“(4) DIRECT FINAL RULES.—*

16                    *“(A) IN GENERAL.—On receipt of a state-*  
 17                    *ment that is submitted jointly by interested per-*  
 18                    *sons that are fairly representative of relevant*  
 19                    *points of view (including representatives of man-*  
 20                    *ufacturers of covered products, States, and effi-*  
 21                    *ciency advocates), as determined by the Sec-*  
 22                    *retary, and contains recommendations with re-*  
 23                    *spect to an energy or water conservation*  
 24                    *standard—*

1           “(i) if the Secretary determines that  
2           the recommended standard contained in the  
3           statement is in accordance with subsection  
4           (o) or section 342(a)(6)(B), as applicable,  
5           the Secretary may issue a final rule that es-  
6           tablishes an energy or water conservation  
7           standard and is published simultaneously  
8           with a notice of proposed rulemaking that  
9           proposes a new or amended energy or water  
10          conservation standard that is identical to  
11          the standard established in the final rule to  
12          establish the recommended standard (re-  
13          ferred to in this paragraph as a ‘direct  
14          final rule’); or

15          “(ii) if the Secretary determines that a  
16          direct final rule cannot be issued based on  
17          the statement, the Secretary shall publish a  
18          notice of the determination, together with  
19          an explanation of the reasons for the deter-  
20          mination.

21          “(B) *PUBLIC COMMENT.*—The Secretary  
22          shall solicit public comment for a period of at  
23          least 110 days with respect to each direct final  
24          rule issued by the Secretary under subparagraph  
25          (A)(i).

1                   “(C) *WITHDRAWAL OF DIRECT FINAL*  
2                   *RULES.*—

3                   “(i) *IN GENERAL.*—*Not later than 120*  
4                   *days after the date on which a direct final*  
5                   *rule issued under subparagraph (A)(i) is*  
6                   *published in the Federal Register, the Sec-*  
7                   *retary shall withdraw the direct final rule*  
8                   *if—*

9                   “(I) *the Secretary receives 1 or*  
10                  *more adverse public comments relating*  
11                  *to the direct final rule under subpara-*  
12                  *graph (B)(i) or any alternative joint*  
13                  *recommendation; and*

14                  “(II) *based on the rulemaking*  
15                  *record relating to the direct final rule,*  
16                  *the Secretary determines that such ad-*  
17                  *verse public comments or alternative*  
18                  *joint recommendation may provide a*  
19                  *reasonable basis for withdrawing the*  
20                  *direct final rule under subsection (o),*  
21                  *section 342(a)(6)(B), or any other ap-*  
22                  *plicable law.*

23                  “(ii) *ACTION ON WITHDRAWAL.*—*On*  
24                  *withdrawal of a direct final rule under*  
25                  *clause (i), the Secretary shall—*

1                   “(I) proceed with the notice of  
 2                   proposed rulemaking published simul-  
 3                   taneously with the direct final rule as  
 4                   described in subparagraph (A)(i); and  
 5                   “(II) publish in the Federal Reg-  
 6                   ister the reasons why the direct final  
 7                   rule was withdrawn.

8                   “(iii) *TREATMENT OF WITHDRAWN DI-*  
 9                   *RECT FINAL RULES.*—A direct final rule  
 10                  that is withdrawn under clause (i) shall not  
 11                  be considered to be a final rule for purposes  
 12                  of subsection (o).

13                  “(D) *EFFECT OF PARAGRAPH.*—Nothing in  
 14                  this paragraph authorizes the Secretary to issue  
 15                  a direct final rule based solely on receipt of more  
 16                  than 1 statement containing recommended  
 17                  standards relating to the direct final rule.”.

18                  (b) *CONFORMING AMENDMENT.*—Section 345(b)(1) of  
 19                  the Energy Policy and Conservation Act (42 U.S.C.  
 20                  6316(b)(1)) is amended in the first sentence by inserting  
 21                  “section 325(p)(5),” after “The provisions of”.

22   **SEC. 309. BATTERY CHARGERS.**

23                  Section 325(u)(1)(E) of the Energy Policy and Con-  
 24                  servation Act (42 U.S.C. 6295(u)(1)(E)) is amended—

1           (1) *by striking “(E)(i) Not” and inserting the*  
 2           *following:*

3                       “(E) *EXTERNAL POWER SUPPLIES AND BAT-*  
 4                       *TERY CHARGERS.—*

5                       “(i) *ENERGY CONSERVATION STAND-*  
 6                       *ARDS.—*

7                       “(I) *EXTERNAL POWER SUP-*  
 8                       *PLIES.—Not”;*

9           (2) *by striking “3 years” and inserting “2*  
 10          *years”;*

11          (3) *by striking “battery chargers and” each place*  
 12          *it appears; and*

13          (4) *by adding at the end the following :*

14                       “(II) *BATTERY CHARGERS.—Not*  
 15                       *later than July 1, 2011, the Secretary*  
 16                       *shall issue a final rule that prescribes*  
 17                       *energy conservation standards for bat-*  
 18                       *tery chargers or classes of battery char-*  
 19                       *gers or determine that no energy con-*  
 20                       *servation standard is technically fea-*  
 21                       *sible and economically justified.”.*

22   **SEC. 310. STANDBY MODE.**

23          *Section 325 of the Energy Policy and Conservation Act*  
 24          *(42 U.S.C. 6295) is amended—*

25               (1) *in subsection (u)—*

1                   (A) by striking paragraphs (2), (3), and  
2                   (4); and

3                   (B) by redesignating paragraph (5) and (6)  
4                   as paragraphs (2) and (3), respectively;

5                   (2) by redesignating subsection (gg) as subsection  
6                   (hh);

7                   (3) by inserting after subsection (ff) the fol-  
8                   lowing:

9                   “(gg) *STANDBY MODE ENERGY USE.*—

10                  “(1) *DEFINITIONS.*—

11                         “(A) *IN GENERAL.*—Unless the Secretary  
12                         determines otherwise pursuant to subparagraph  
13                         (B), in this subsection:

14                                 “(i) *ACTIVE MODE.*—The term ‘active  
15                                 mode’ means the condition in which an en-  
16                                 ergy-using product—

17   “(I) is connected to a main power  
18   source;

19   “(II) has been activated; and

20   “(III) provides 1 or more main  
21   functions.

22                                 “(ii) *OFF MODE.*—The term ‘off mode’  
23                                 means the condition in which an energy-  
24                                 using product—

1 “(I) is connected to a main power  
2 source; and

3 “(II) is not providing any stand-  
4 by or active mode function.

5 “(iii) *STANDBY MODE*.—The term  
6 ‘standby mode’ means the condition in  
7 which an energy-using product—

8 “(I) is connected to a main power  
9 source; and

10 “(II) offers 1 or more of the fol-  
11 lowing user-oriented or protective func-  
12 tions:

13 “(aa) To facilitate the acti-  
14 vation or deactivation of other  
15 functions (including active mode)  
16 by remote switch (including re-  
17 mote control), internal sensor, or  
18 timer.

19 “(bb) Continuous functions,  
20 including information or status  
21 displays (including clocks) or sen-  
22 sor-based functions.

23 “(B) *AMENDED DEFINITIONS*.—The Sec-  
24 retary may, by rule, amend the definitions under  
25 subparagraph (A), taking into consideration the



1        *most current versions of Standards 62301 and*  
2        *62087 of the International Electrotechnical Com-*  
3        *mission.*

4        “(2) *TEST PROCEDURES.*—

5                “(A) *IN GENERAL.*—*Test procedures for all*  
6        *covered products shall be amended pursuant to*  
7        *section 323 to include standby mode and off*  
8        *mode energy consumption, taking into consider-*  
9        *ation the most current versions of Standards*  
10       *62301 and 62087 of the International Electro-*  
11       *technical Commission, with such energy con-*  
12       *sumption integrated into the overall energy effi-*  
13       *ciency, energy consumption, or other energy*  
14       *descriptor for each covered product, unless the*  
15       *Secretary determines that—*

16                “(i) *the current test procedures for a*  
17        *covered product already fully account for*  
18        *and incorporate the standby mode and off*  
19        *mode energy consumption of the covered*  
20        *product; or*

21                “(ii) *such an integrated test procedure*  
22        *is technically infeasible for a particular*  
23        *covered product, in which case the Secretary*  
24        *shall prescribe a separate standby mode and*

1           *off mode energy use test procedure for the*  
 2           *covered product, if technically feasible.*

3           “(B) *DEADLINES.*—*The test procedure*  
 4           *amendments required by subparagraph (A) shall*  
 5           *be prescribed in a final rule no later than the*  
 6           *following dates:*

7                   “(i) *December 31, 2008, for battery*  
 8                   *chargers and external power supplies.*

9                   “(ii) *March 31, 2009, for clothes dry-*  
 10                  *ers, room air conditioners, and fluorescent*  
 11                  *lamp ballasts.*

12                  “(iii) *June 30, 2009, for residential*  
 13                  *clothes washers.*

14                  “(iv) *September 30, 2009, for residen-*  
 15                  *tial furnaces and boilers.*

16                  “(v) *March 31, 2010, for residential*  
 17                  *water heaters, direct heating equipment,*  
 18                  *and pool heaters.*

19                  “(vi) *March 31, 2011, for residential*  
 20                  *dishwashers, ranges and ovens, microwave*  
 21                  *ovens, and dehumidifiers.*

22           “(C) *PRIOR PRODUCT STANDARDS.*—*The*  
 23           *test procedure amendments adopted pursuant to*  
 24           *subparagraph (B) shall not be used to determine*  
 25           *compliance with product standards established*

1        *prior to the adoption of the amended test proce-*  
 2        *dures.*

3        “(3) *INCORPORATION INTO STANDARD.*—

4                “(A) *IN GENERAL.*—Subject to subpara-  
 5        *graph (B), based on the test procedures required*  
 6        *under paragraph (2), any final rule establishing*  
 7        *or revising a standard for a covered product,*  
 8        *adopted after July 1, 2010, shall incorporate*  
 9        *standby mode and off mode energy use into a*  
 10        *single amended or new standard, pursuant to*  
 11        *subsection (o), if feasible.*

12               “(B) *SEPARATE STANDARDS.*—If not fea-  
 13        *sible, the Secretary shall prescribe within the*  
 14        *final rule a separate standard for standby mode*  
 15        *and off mode energy consumption, if justified*  
 16        *under subsection (o).”; and*

17               (4) *in paragraph (2) of subsection (hh) (as redes-*  
 18        *ignated by paragraph (2)) , by striking “(ff)” each*  
 19        *place it appears and inserting “(gg)”.*

20        **SEC. 311. ENERGY STANDARDS FOR HOME APPLIANCES.**

21        (a) *APPLIANCES.*—

22               (1) *DEHUMIDIFIERS.*—Section 325(cc) of the *En-*  
 23        *ergy Policy and Conservation Act (42 U.S.C.*  
 24        *6295(cc)) is amended by striking paragraph (2) and*  
 25        *inserting the following:*

1           “(2) *DEHUMIDIFIERS MANUFACTURED ON OR*  
 2           *AFTER OCTOBER 1, 2012.—Dehumidifiers manufac-*  
 3           *tured on or after October 1, 2012, shall have an En-*  
 4           *ergy Factor that meets or exceeds the following values:*

<b>“Product Capacity (pints/day):</b>	<b>Minimum Energy Factor (liters/ KWh)</b>
<i>Up to 35.00 .....</i>	<i>1.35</i>
<i>35.01–45.00 .....</i>	<i>1.50</i>
<i>45.01–54.00 .....</i>	<i>1.60</i>
<i>54.01–75.00 .....</i>	<i>1.70</i>
<i>Greater than 75.00 .....</i>	<i>2.5.”.</i>

5           (2) *RESIDENTIAL CLOTHES WASHERS AND RESI-*  
 6           *DENTIAL DISHWASHERS.—Section 325(g) of the En-*  
 7           *ergy Policy and Conservation Act (42 U.S.C. 6295(g))*  
 8           *is amended by adding at the end the following:*

9           “(9) *RESIDENTIAL CLOTHES WASHERS MANUFAC-*  
 10          *TURED ON OR AFTER JANUARY 1, 2011.—*

11          “(A) *IN GENERAL.—A top-loading or front-*  
 12          *loading standard-size residential clothes washer*  
 13          *manufactured on or after January 1, 2011, shall*  
 14          *have—*

15                 “(i) *a Modified Energy Factor of at*  
 16                 *least 1.26; and*

17                 “(ii) *a water factor of not more than*  
 18                 *9.5.*

19          “(B) *AMENDMENT OF STANDARDS.—*

20                 “(i) *IN GENERAL.—Not later than De-*  
 21                 *cember 31, 2011, the Secretary shall publish*

1           *a final rule determining whether to amend*  
 2           *the standards in effect for clothes washers*  
 3           *manufactured on or after January 1, 2015.*

4                   “(ii)    *AMENDED    STANDARDS.—The*  
 5           *final rule shall contain any amended stand-*  
 6           *ards.*

7                   “(10)   *RESIDENTIAL DISHWASHERS MANUFAC-*  
 8           *TURED ON OR AFTER JANUARY 1, 2010.—*

9                   “(A)   *IN GENERAL.—A dishwasher manufac-*  
 10           *tured on or after January 1, 2010, shall—*

11                           “(i)   *for a standard size dishwasher not*  
 12           *exceed 355 kwh/year and 6.5 gallon per*  
 13           *cycle; and*

14                           “(ii)   *for a compact size dishwasher not*  
 15           *exceed 260 kwh/year and 4.5 gallons per*  
 16           *cycle.*

17                   “(B)   *AMENDMENT OF STANDARDS.—*

18                           “(i)   *IN GENERAL.—Not later than Jan-*  
 19           *uary 1, 2015, the Secretary shall publish a*  
 20           *final rule determining whether to amend the*  
 21           *standards for dishwashers manufactured on*  
 22           *or after January 1, 2018.*

23                           “(ii)   *AMENDED    STANDARDShe final*  
 24           *rule shall contain any amended stand-*  
 25           *ards.”.*

1           (3) *REFRIGERATORS AND FREEZERS.*—Section  
 2           325(b) of the *Energy Policy and Conservation Act* (42  
 3           U.S.C. 6295(b)) is amended by adding at the end the  
 4           following:

5           “(4) *REFRIGERATORS AND FREEZERS MANUFAC-*  
 6           *TURED ON OR AFTER JANUARY 1, 2014.*—

7           “(A) *IN GENERAL.*—Not later than Decem-  
 8           ber 31, 2010, the Secretary shall publish a final  
 9           rule determining whether to amend the stand-  
 10          ards in effect for refrigerators, refrigerator-freez-  
 11          ers, and freezers manufactured on or after Janu-  
 12          ary 1, 2014.

13          “(B) *AMENDED STANDARDS.*—The final  
 14          rule shall contain any amended standards.”.

15          (b) *ENERGY STAR.*—Section 324A(d)(2) of the *Energy*  
 16          *Policy and Conservation Act* (42 U.S.C. 6294a(d)(2)) is  
 17          amended by striking “January 1, 2010” and inserting  
 18          “July 1, 2009”.

19       **SEC. 312. WALK-IN COOLERS AND WALK-IN FREEZERS.**

20          (a) *DEFINITIONS.*—Section 340 of the *Energy Policy*  
 21          *and Conservation Act* (42 U.S.C. 6311) is amended—

22          (1) in paragraph (1)—

23                  (A) by redesignating subparagraphs (G)  
 24                  through (K) as subparagraphs (H) through (L),  
 25                  respectively; and

1                   (B) by inserting after subparagraph (F) the  
2                   following:

3                   “(G) Walk-in coolers and walk-in freezers.”;

4                   (2) by redesignating paragraphs (20) and (21)  
5                   as paragraphs (21) and (22), respectively; and

6                   (3) by inserting after paragraph (19) the fol-  
7                   lowing:

8                   “(20) WALK-IN COOLER; WALK-IN FREEZER.—

9                   “(A) IN GENERAL.—The terms ‘walk-in  
10                   cooler’ and ‘walk-in freezer’ mean an enclosed  
11                   storage space refrigerated to temperatures, re-  
12                   spectively, above, and at or below 32 degrees  
13                   Fahrenheit that can be walked into, and has a  
14                   total chilled storage area of less than 3,000  
15                   square feet.

16                   “(B) EXCLUSION.—The terms ‘walk-in cool-  
17                   er’ and ‘walk-in freezer’ do not include products  
18                   designed and marketed exclusively for medical,  
19                   scientific, or research purposes.”.

20                   (b) STANDARDS.—Section 342 of the Energy Policy  
21                   and Conservation Act (42 U.S.C. 6313) is amended by add-  
22                   ing at the end the following:

23                   “(f) WALK-IN COOLERS AND WALK-IN FREEZERS.—

1           “(1) *IN GENERAL.*—Subject to paragraphs (2)  
2           *through (5), each walk-in cooler or walk-in freezer*  
3           *manufactured on or after January 1, 2009, shall—*

4                   “(A) *have automatic door closers that firm-*  
5                   *ly close all walk-in doors that have been closed*  
6                   *to within 1 inch of full closure, except that this*  
7                   *subparagraph shall not apply to doors wider*  
8                   *than 3 feet 9 inches or taller than 7 feet;*

9                   “(B) *have strip doors, spring hinged doors,*  
10                  *or other method of minimizing infiltration when*  
11                  *doors are open;*

12                  “(C) *contain wall, ceiling, and door insula-*  
13                  *tion of at least R–25 for coolers and R–32 for*  
14                  *freezers, except that this subparagraph shall not*  
15                  *apply to glazed portions of doors nor to struc-*  
16                  *tural members;*

17                  “(D) *contain floor insulation of at least R–*  
18                  *28 for freezers;*

19                  “(E) *for evaporator fan motors of under 1*  
20                  *horsepower and less than 460 volts, use—*

21                          “(i) *electronically commutated motors*  
22                          *(brushless direct current motors); or*

23                          “(ii) *3-phase motors;*

24                  “(F) *for condenser fan motors of under 1*  
25                  *horsepower, use—*



1 “(i) *electronically commutated motors;*

2 “(ii) *permanent split capacitor-type*

3 *motors; or*

4 “(iii) *3-phase motors; and*

5 “(G) *for all interior lights, use light sources*

6 *with an efficacy of 40 lumens per watt or more,*

7 *including ballast losses (if any), except that light*

8 *sources with an efficacy of 40 lumens per watt*

9 *or less, including ballast losses (if any), may be*

10 *used in conjunction with a timer or device that*

11 *turns off the lights within 15 minutes of when*

12 *the walk-in cooler or walk-in freezer is not occu-*

13 *piated by people.*

14 “(2) *ELECTRONICALLY COMMUTATED MOTORS.—*

15 “(A) *IN GENERAL.—The requirements of*

16 *paragraph (1)(E)(i) for electronically com-*

17 *mutated motors shall take effect January 1,*

18 *2009, unless, prior to that date, the Secretary de-*

19 *termines that such motors are only available*

20 *from 1 manufacturer.*

21 “(B) *OTHER TYPES OF MOTORS.—In car-*

22 *rying out paragraph (1)(E)(i) and subpara-*

23 *graph (A), the Secretary may allow other types*

24 *of motors if the Secretary determines that, on av-*

25 *erage, those other motors use no more energy in*

1        *evaporator fan applications than electronically*  
 2        *commutated motors.*

3                “(C) *MAXIMUM ENERGY CONSUMPTION*  
 4        *LEVEL.—The Secretary shall establish the max-*  
 5        *imum energy consumption level under subpara-*  
 6        *graph (B) not later than January 1, 2010.*

7                “(3) *ADDITIONAL SPECIFICATIONS.—Each walk-*  
 8        *in cooler or walk-in freezer with transparent reach-in*  
 9        *doors manufactured on or after January 1, 2009,*  
 10       *shall also meet the following specifications:*

11               “(A) *Transparent reach-in doors for walk-*  
 12        *in freezers and windows in walk-in freezer doors*  
 13        *shall be of triple-pane glass with either heat-re-*  
 14        *flective treated glass or gas fill.*

15               “(B) *Transparent reach-in doors for walk-*  
 16        *in coolers and windows in walk-in cooler doors*  
 17        *shall be—*

18               “(i) *double-pane glass with heat-reflec-*  
 19        *tive treated glass and gas fill; or*

20               “(ii) *triple-pane glass with either heat-*  
 21        *reflective treated glass or gas fill.*

22               “(C) *If the appliance has an antisweat*  
 23        *heater without antisweat heat controls, the appli-*  
 24        *ance shall have a total door rail, glass, and*  
 25        *frame heater power draw of not more than 7.1*

1        *watts per square foot of door opening (for freez-*  
 2        *ers) and 3.0 watts per square foot of door open-*  
 3        *ing (for coolers).*

4                *“(D) If the appliance has an antisweat*  
 5        *heater with antisweat heat controls, and the total*  
 6        *door rail, glass, and frame heater power draw is*  
 7        *more than 7.1 watts per square foot of door*  
 8        *opening (for freezers) and 3.0 watts per square*  
 9        *foot of door opening (for coolers), the antisweat*  
 10       *heat controls shall reduce the energy use of the*  
 11       *antisweat heater in a quantity corresponding to*  
 12       *the relative humidity in the air outside the door*  
 13       *or to the condensation on the inner glass pane.*

14        *“(4) PERFORMANCE-BASED STANDARDS.—*

15                *“(A) IN GENERAL.—Not later than January*  
 16        *1, 2012, the Secretary shall publish performance-*  
 17        *based standards for walk-in coolers and walk-in*  
 18        *freezers that achieve the maximum improvement*  
 19        *in energy that the Secretary determines is tech-*  
 20        *nologically feasible and economically justified.*

21                *“(B) APPLICATION.—*

22                *“(i) IN GENERAL.—Except as provided*  
 23        *in clause (ii), the standards shall apply to*  
 24        *products described in subparagraph (A)*  
 25        *that are manufactured beginning on the*

1           *date that is 3 years after the final rule is*  
 2           *published.*

3           “(ii) *DELAYED EFFECTIVE DATE.*—*If*  
 4           *the Secretary determines, by rule, that a 3-*  
 5           *year period is inadequate, the Secretary*  
 6           *may establish an effective date for products*  
 7           *manufactured beginning on the date that is*  
 8           *not more than 5 years after the date of pub-*  
 9           *lication of a final rule for the products.*

10          “(5) *AMENDMENT OF STANDARDS.*—

11           “(A) *IN GENERAL.*—*Not later than January*  
 12           *1, 2020, the Secretary shall publish a final rule*  
 13           *to determine if the standards established under*  
 14           *paragraph (4) should be amended.*

15           “(B) *APPLICATION.*—

16           “(i) *IN GENERAL.*—*Except as provided*  
 17           *in clause (ii), the rule shall provide that the*  
 18           *standards shall apply to products manufac-*  
 19           *tured beginning on the date that is 3 years*  
 20           *after the final rule is published.*

21           “(ii) *DELAYED EFFECTIVE DATE.*—*If*  
 22           *the Secretary determines, by rule, that a 3-*  
 23           *year period is inadequate, the Secretary*  
 24           *may establish an effective date for products*  
 25           *manufactured beginning on the date that is*

1                   *not more than 5 years after the date of pub-*  
 2                   *lication of a final rule for the products.”.*

3           (c) *TEST PROCEDURES.*—*Section 343(a) of the Energy*  
 4 *Policy and Conservation Act (42 U.S.C. 6314(a)) is amend-*  
 5 *ed by adding at the end the following:*

6                   “(9) *WALK-IN COOLERS AND WALK-IN FREEZ-*  
 7           *ERS.*—

8                   “(A) *IN GENERAL.*—*For the purpose of test*  
 9           *procedures for walk-in coolers and walk-in freez-*  
 10           *ers:*

11                   “(i) *The R value shall be the 1/K factor*  
 12           *multiplied by the thickness of the panel.*

13                   “(ii) *The K factor shall be based on*  
 14           *ASTM test procedure C518–2004.*

15                   “(iii) *For calculating the R value for*  
 16           *freezers, the K factor of the foam at 20°F*  
 17           *(average foam temperature) shall be used.*

18                   “(iv) *For calculating the R value for*  
 19           *coolers, the K factor of the foam at 55°F*  
 20           *(average foam temperature) shall be used.*

21                   “(B) *TEST PROCEDURE.*—

22                   “(i) *IN GENERAL.*—*Not later than Jan-*  
 23           *uary 1, 2010, the Secretary shall establish*  
 24           *a test procedure to measure the energy-use*  
 25           *of walk-in coolers and walk-in freezers.*

1                   “(ii) *COMPUTER MODELING.*—*The test*  
 2                   *procedure may be based on computer mod-*  
 3                   *eling, if the computer model or models have*  
 4                   *been verified using the results of laboratory*  
 5                   *tests on a significant sample of walk-in*  
 6                   *coolers and walk-in freezers.*”.

7           (d) *LABELING.*—*Section 344(e) of the Energy Policy*  
 8           *and Conservation Act (42 U.S.C. 6315(e)) is amended by*  
 9           *inserting “walk-in coolers and walk-in freezers,” after*  
 10           *“commercial clothes washers,” each place it appears.*

11           (e) *ADMINISTRATION, PENALTIES, ENFORCEMENT, AND*  
 12           *PREEMPTION.*—*Section 345 of the Energy Policy and Con-*  
 13           *servation Act (42 U.S.C. 6316) is amended—*

14                   (1) *by striking “subparagraphs (B), (C), (D),*  
 15                   *(E), and (F)” each place it appears and inserting*  
 16                   *“subparagraphs (B) through (G)”;* and

17                   (2) *by adding at the end the following:*

18           “(h) *WALK-IN COOLERS AND WALK-IN FREEZERS.*—

19                   “(1) *COVERED TYPES.*—

20                           “(A) *RELATIONSHIP TO OTHER LAW.*—

21                                   “(i) *IN GENERAL.*—*Except as otherwise*  
 22                                   *provided in this subsection, section 327*  
 23                                   *shall apply to walk-in coolers and walk-in*  
 24                                   *freezers for which standards have been es-*  
 25                                   *tablished under paragraphs (1), (2), and (3)*

1           of section 342(f) to the same extent and in  
 2           the same manner as the section applies  
 3           under part A on the date of enactment of  
 4           this subsection.

5           “(ii) *STATE STANDARDS.*—Any State  
 6           standard prescribed before the date of enact-  
 7           ment of this subsection shall not be pre-  
 8           empted until the standards established  
 9           under paragraphs (1) and (2) of section  
 10          342(f) take effect.

11          “(B) *ADMINISTRATION.*—In applying sec-  
 12          tion 327 to equipment under subparagraph (A),  
 13          paragraphs (1), (2), and (3) of subsection (a)  
 14          shall apply.

15          “(2) *FINAL RULE NOT TIMELY.*—

16          “(A) *IN GENERAL.*—If the Secretary does  
 17          not issue a final rule for a specific type of walk-  
 18          in cooler or walk-in freezer within the time  
 19          frame established under paragraph (4) or (5) of  
 20          section 342(f), subsections (b) and (c) of section  
 21          327 shall no longer apply to the specific type of  
 22          walk-in cooler or walk-in freezer during the  
 23          period—

24                 “(i) beginning on the day after the  
 25                 scheduled date for a final rule; and

1                   “(ii) ending on the date on which the  
2                   Secretary publishes a final rule covering the  
3                   specific type of walk-in cooler or walk-in  
4                   freezer.

5                   “(B) STATE STANDARDS.—Any State stand-  
6                   ard issued before the publication of the final rule  
7                   shall not be preempted until the standards estab-  
8                   lished in the final rule take effect.

9                   “(3) CALIFORNIA.—Any standard issued in the  
10                  State of California before January 1, 2011, under  
11                  title 20 of the California Code of Regulations, that re-  
12                  fers to walk-in coolers and walk-in freezers, for which  
13                  standards have been established under paragraphs  
14                  (1), (2), and (3) of section 342(f), shall not be pre-  
15                  empted until the standards established under section  
16                  342(f)(3) take effect.”.

17 **SEC. 313. ELECTRIC MOTOR EFFICIENCY STANDARDS.**

18                  (a) DEFINITIONS.—Section 340(13) of the Energy Pol-  
19                  icy and Conservation Act (42 U.S.C. 6311(13)) is  
20                  amended—

21                         (1) by redesignating subparagraphs (B) through  
22                         (H) as subparagraphs (C) through (I), respectively;  
23                         and



(2) by striking “(13)(A)” and all that follows through the end of subparagraph (A) and inserting the following:

“(13) *ELECTRIC MOTOR*.—

“(A) *GENERAL PURPOSE ELECTRIC MOTOR (SUBTYPE I)*.—The term ‘general purpose electric motor (subtype I)’ means any motor that meets the definition of ‘General Purpose’ as established in the final rule issued by the Department of Energy entitled ‘Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors’ (10 C.F.R. 431), as in effect on the date of enactment of the Energy Independence and Security Act of 2007.

“(B) *GENERAL PURPOSE ELECTRIC MOTOR (SUBTYPE II)*.—The term ‘general purpose electric motor (subtype II)’ means motors incorporating the design elements of a general purpose electric motor (subtype I) that are configured as 1 of the following:

“(i) *A U-Frame Motor*.

“(ii) *A Design C Motor*.

“(iii) *A close-coupled pump motor*.

“(iv) *A Footless motor*.

1                   “(v) *A vertical solid shaft normal*  
 2                   *thrust motor (as tested in a horizontal con-*  
 3                   *figuration).*

4                   “(vi) *An 8-pole motor (900 rpm).*

5                   “(vii) *A poly-phase motor with voltage*  
 6                   *of not more than 600 volts (other than 230*  
 7                   *or 460 volts.”.*

8           (b) *STANDARDS.—*

9                   (1) *AMENDMENT.—Section 342(b) of the Energy*  
 10                  *Policy and Conservation Act (42 U.S.C. 6313(b)) is*  
 11                  *amended—*

12                   (A) *by redesignating paragraphs (2) and*  
 13                   *(3) as paragraphs (3) and (4), respectively; and*

14                   (B) *by inserting after paragraph (1) the fol-*  
 15                   *lowing:*

16                   “(2) *ELECTRIC MOTORS.—*

17                   “(A) *GENERAL PURPOSE ELECTRIC MOTORS*  
 18                   *(SUBTYPE I).—Except as provided in subpara-*  
 19                   *graph (B), each general purpose electric motor*  
 20                   *(subtype I) with a power rating of 1 horsepower*  
 21                   *or greater, but not greater than 200 horsepower,*  
 22                   *manufactured (alone or as a component of an-*  
 23                   *other piece of equipment) after the 3-year period*  
 24                   *beginning on the date of enactment of the Energy*  
 25                   *Independence and Security Act of 2007, shall*

1        *have a nominal full load efficiency that is not*  
 2        *less than as defined in NEMA MG-1 (2006)*  
 3        *Table 12-12.*

4                *“(B) FIRE PUMP MOTORS.—Each fire pump*  
 5        *motor manufactured (alone or as a component of*  
 6        *another piece of equipment) after the 3-year pe-*  
 7        *riod beginning on the date of enactment of the*  
 8        *Energy Independence and Security Act of 2007*  
 9        *shall have nominal full load efficiency that is not*  
 10       *less than as defined in NEMA MG-1 (2006)*  
 11       *Table 12-11.*

12               *“(C) GENERAL PURPOSE ELECTRIC MOTORS*  
 13       *(SUBTYPE II).—Each general purpose electric*  
 14       *motor (subtype II) with a power rating of 1*  
 15       *horsepower or greater, but not greater than 200*  
 16       *horsepower, manufactured (alone or as a compo-*  
 17       *nent of another piece of equipment) after the 3-*  
 18       *year period beginning on the date of enactment*  
 19       *of the Energy Independence and Security Act of*  
 20       *2007, shall have a nominal full load efficiency*  
 21       *that is not less than as defined in NEMA MG-*  
 22       *1 (2006) Table 12-11.*

23               *“(D) NEMA DESIGN B, GENERAL PURPOSE*  
 24       *ELECTRIC MOTORS.—Each NEMA Design B,*  
 25       *general purpose electric motor with a power rat-*

ing of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) after the 3-year period beginning on the date of enactment of the Energy Independence and Security Act of 2007, shall have a nominal full load efficiency that is not less than as defined in NEMA MG-1 (2006) Table 12-11.”.

(2) *EFFECTIVE DATE.*—The amendments made by paragraph (1) take effect on the date that is 3 years after the date of enactment of this Act.

**SEC. 314. STANDARDS FOR SINGLE PACKAGE VERTICAL AIR CONDITIONERS AND HEAT PUMPS.**

(a) *DEFINITIONS.*—Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) is amended by adding at the end the following:

“(22) *SINGLE PACKAGE VERTICAL AIR CONDITIONER.*—The term ‘single package vertical air conditioner’ means air-cooled commercial package air conditioning and heating equipment that—

“(A) is factory-assembled as a single package that—

“(i) has major components that are arranged vertically;

1                   “(ii) is an encased combination of cool-  
2                   ing and optional heating components; and

3                   “(iii) is intended for exterior mounting  
4                   on, adjacent interior to, or through an out-  
5                   side wall;

6                   “(B) is powered by a single- or 3-phase cur-  
7                   rent;

8                   “(C) may contain 1 or more separate in-  
9                   door grilles, outdoor louvers, various ventilation  
10                  options, indoor free air discharges, ductwork,  
11                  well plenum, or sleeves; and

12                  “(D) has heating components that may in-  
13                  clude electrical resistance, steam, hot water, or  
14                  gas, but may not include reverse cycle refrigera-  
15                  tion as a heating means.

16                  “(23) SINGLE PACKAGE VERTICAL HEAT PUMP.—  
17                  The term ‘single package vertical heat pump’ means  
18                  a single package vertical air conditioner that—

19                         “(A) uses reverse cycle refrigeration as its  
20                         primary heat source; and

21                         “(B) may include secondary supplemental  
22                         heating by means of electrical resistance, steam,  
23                         hot water, or gas.”.

24                  (b) STANDARDS.—Section 342(a) of the Energy Policy  
25                  and Conservation Act (42 U.S.C. 6313(a)) is amended—

1           (1) *in the first sentence of each of paragraphs (1)*  
 2           *and (2), by inserting “(including single package*  
 3           *vertical air conditioners and single package vertical*  
 4           *heat pumps)” after “heating equipment” each place it*  
 5           *appears;*

6           (2) *in paragraph (1), by striking “but before*  
 7           *January 1, 2010,”;*

8           (3) *in the first sentence of each of paragraphs*  
 9           *(7), (8), and (9), by inserting “(other than single*  
 10           *package vertical air conditioners and single package*  
 11           *vertical heat pumps)” after “heating equipment” each*  
 12           *place it appears;*

13           (4) *in paragraph (7)—*

14                (A) *by striking “manufactured on or after*  
 15                *January 1, 2010,”;*

16                (B) *in each of subparagraphs (A), (B), and*  
 17                *(C), by striking “The” and inserting “For equip-*  
 18                *ment manufactured on or after January 1, 2010,*  
 19                *the”;* *and*

20                (C) *by adding at the end the following:*

21                “(D) *For equipment manufactured on or after*  
 22                *the later of January 1, 2008, or the date that is 180*  
 23                *days after the date of enactment of the Energy Inde-*  
 24                *pendence and Security Act of 2007—*

1           “(i) the minimum seasonal energy efficiency  
2           ratio of air-cooled 3-phase electric central air  
3           conditioners and central air conditioning heat  
4           pumps less than 65,000 Btu per hour (cooling  
5           capacity), split systems, shall be 13.0;

6           “(ii) the minimum seasonal energy effi-  
7           ciency ratio of air-cooled 3-phase electric central  
8           air conditioners and central air conditioning  
9           heat pumps less than 65,000 Btu per hour (cool-  
10          ing capacity), single package, shall be 13.0;

11          “(iii) the minimum heating seasonal per-  
12          formance factor of air-cooled 3-phase electric cen-  
13          tral air conditioning heat pumps less than  
14          65,000 Btu per hour (cooling capacity), split  
15          systems, shall be 7.7; and

16          “(iv) the minimum heating seasonal per-  
17          formance factor of air-cooled three-phase electric  
18          central air conditioning heat pumps less than  
19          65,000 Btu per hour (cooling capacity), single  
20          package, shall be 7.7.”; and

21          (5) by adding at the end the following:

22          “(10) SINGLE PACKAGE VERTICAL AIR CONDI-  
23          TIONERS AND SINGLE PACKAGE VERTICAL HEAT  
24          PUMPS.—

1           “(A) *IN GENERAL.*—*Single package vertical*  
2           *air conditioners and single package vertical heat*  
3           *pumps manufactured on or after January 1,*  
4           *2010, shall meet the following standards:*

5                   “(i) *The minimum energy efficiency*  
6                   *ratio of single package vertical air condi-*  
7                   *tioners less than 65,000 Btu per hour (cool-*  
8                   *ing capacity), single-phase, shall be 9.0.*

9                   “(ii) *The minimum energy efficiency*  
10                  *ratio of single package vertical air condi-*  
11                  *tioners less than 65,000 Btu per hour (cool-*  
12                  *ing capacity), three-phase, shall be 9.0.*

13                  “(iii) *The minimum energy efficiency*  
14                  *ratio of single package vertical air condi-*  
15                  *tioners at or above 65,000 Btu per hour*  
16                  *(cooling capacity) but less than 135,000 Btu*  
17                  *per hour (cooling capacity), shall be 8.9.*

18                  “(iv) *The minimum energy efficiency*  
19                  *ratio of single package vertical air condi-*  
20                  *tioners at or above 135,000 Btu per hour*  
21                  *(cooling capacity) but less than 240,000 Btu*  
22                  *per hour (cooling capacity), shall be 8.6.*

23                  “(v) *The minimum energy efficiency*  
24                  *ratio of single package vertical heat pumps*  
25                  *less than 65,000 Btu per hour (cooling ca-*



1            *capacity), single-phase, shall be 9.0 and the*  
2            *minimum coefficient of performance in the*  
3            *heating mode shall be 3.0.*

4            *“(vi) The minimum energy efficiency*  
5            *ratio of single package vertical heat pumps*  
6            *less than 65,000 Btu per hour (cooling ca-*  
7            *capacity), three-phase, shall be 9.0 and the*  
8            *minimum coefficient of performance in the*  
9            *heating mode shall be 3.0.*

10           *“(vii) The minimum energy efficiency*  
11           *ratio of single package vertical heat pumps*  
12           *at or above 65,000 Btu per hour (cooling*  
13           *capacity) but less than 135,000 Btu per*  
14           *hour (cooling capacity), shall be 8.9 and the*  
15           *minimum coefficient of performance in the*  
16           *heating mode shall be 3.0.*

17           *“(viii) The minimum energy efficiency*  
18           *ratio of single package vertical heat pumps*  
19           *at or above 135,000 Btu per hour (cooling*  
20           *capacity) but less than 240,000 Btu per*  
21           *hour (cooling capacity), shall be 8.6 and the*  
22           *minimum coefficient of performance in the*  
23           *heating mode shall be 2.9.*

24           *“(B) REVIEW.—Not later than 3 years after*  
25           *the date of enactment of this paragraph, the Sec-*

1           retary shall review the most recently published  
 2           ASHRAE/IES Standard 90.1 with respect to  
 3           single package vertical air conditioners and sin-  
 4           gle package vertical heat pumps in accordance  
 5           with the procedures established under paragraph  
 6           (6).”.

7   **SEC. 315. IMPROVED ENERGY EFFICIENCY FOR APPLIANCES**  
 8                           **AND BUILDINGS IN COLD CLIMATES.**

9           (a) *RESEARCH*.—Section 911(a)(2) of the Energy Pol-  
 10    icy Act of 2005 (42 U.S.C. 16191(a)(2)) is amended—

11           (1) in subparagraph (C), by striking “and” at  
 12    the end;

13           (2) in subparagraph (D), by striking the period  
 14    at the end and inserting “; and”; and

15           (3) by adding at the end the following:

16                   “(E) technologies to improve the energy effi-  
 17    ciency of appliances and mechanical systems for  
 18    buildings in cold climates, including combined  
 19    heat and power units and increased use of re-  
 20    newable resources, including fuel.”.

21           (b) *REBATES*.—Section 124 of the Energy Policy Act  
 22    of 2005 (42 U.S.C. 15821) is amended—

23           (1) in subsection (b)(1), by inserting “, or prod-  
 24    ucts with improved energy efficiency in cold cli-  
 25    mates,” after “residential Energy Star products”; and

1           (2) *in subsection (e), by inserting “or product*  
 2           *with improved energy efficiency in a cold climate”*  
 3           *after “residential Energy Star product” each place it*  
 4           *appears.*

5 **SEC. 316. TECHNICAL CORRECTIONS.**

6           (a) *DEFINITION OF F96T12 LAMP.—*

7                 (1) *IN GENERAL.—Section 135(a)(1)(A)(ii) of the*  
 8           *Energy Policy Act of 2005 (Public Law 109–58; 119*  
 9           *Stat. 624) is amended by striking “C78.1–1978*  
 10           *(R1984)” and inserting “C78.3–1978 (R1984)”.*

11                (2) *EFFECTIVE DATE.—The amendment made by*  
 12           *paragraph (1) takes effect on August 8, 2005.*

13           (b) *DEFINITION OF FLUORESCENT LAMP.—Section*  
 14           *321(30)(B)(viii) of the Energy Policy and Conservation Act*  
 15           *(42 U.S.C. 6291(30)(B)(viii)) is amended by striking “82”*  
 16           *and inserting “87”.*

17           (c) *MERCURY VAPOR LAMP BALLASTS.—*

18                (1) *DEFINITIONS.—Section 321 of the Energy*  
 19           *Policy and Conservation Act (42 U.S.C. 6291) (as*  
 20           *amended by section 301(a)(2)) is amended—*

21                         (A) *by striking paragraphs (46) through*  
 22                         *(48) and inserting the following:*

23                                 *“(46) HIGH INTENSITY DISCHARGE LAMP.—*

1                   “(A) *IN GENERAL.*—*The term ‘high inten-*  
 2                   *sity discharge lamp’ means an electric-discharge*  
 3                   *lamp in which—*

4                   “(i) *the light-producing arc is sta-*  
 5                   *bilized by the arc tube wall temperature;*  
 6                   *and*

7                   “(ii) *the arc tube wall loading is in ex-*  
 8                   *cess of 3 Watts/cm<sup>2</sup>.*

9                   “(B) *INCLUSIONS.*—*The term ‘high inten-*  
 10                  *sity discharge lamp’ includes mercury vapor,*  
 11                  *metal halide, and high-pressure sodium lamps*  
 12                  *described in subparagraph (A).*

13                  “(47) *MERCURY VAPOR LAMP.*—

14                  “(A) *IN GENERAL.*—*The term ‘mercury*  
 15                  *vapor lamp’ means a high intensity discharge*  
 16                  *lamp in which the major portion of the light is*  
 17                  *produced by radiation from mercury typically*  
 18                  *operating at a partial vapor pressure in excess*  
 19                  *of 100,000 Pa (approximately 1 atm).*

20                  “(B) *INCLUSIONS.*—*The term ‘mercury*  
 21                  *vapor lamp’ includes clear, phosphor-coated, and*  
 22                  *self-ballasted screw base lamps described in sub-*  
 23                  *paragraph (A).*

24                  “(48) *MERCURY VAPOR LAMP BALLAST.*—*The*  
 25                  *term ‘mercury vapor lamp ballast’ means a device*

1       *that is designed and marketed to start and operate*  
 2       *mercury vapor lamps intended for general illumina-*  
 3       *tion by providing the necessary voltage and current.”;*  
 4       *and*

5                       *(B) by adding at the end the following:*

6               “(53) *SPECIALTY APPLICATION MERCURY VAPOR*  
 7       *LAMP BALLAST.—The term ‘specialty application*  
 8       *mercury vapor lamp ballast’ means a mercury vapor*  
 9       *lamp ballast that—*

10                   “(A) *is designed and marketed for operation*  
 11               *of mercury vapor lamps used in quality inspec-*  
 12               *tion, industrial processing, or scientific use, in-*  
 13               *cluding fluorescent microscopy and ultraviolet*  
 14               *curing; and*

15                   “(B) *in the case of a specialty application*  
 16               *mercury vapor lamp ballast, the label of which—*

17                   “(i) *provides that the specialty appli-*  
 18               *cation mercury vapor lamp ballast is ‘For*  
 19               *specialty applications only, not for general*  
 20               *illumination’; and*

21                   “(ii) *specifies the specific applications*  
 22               *for which the ballast is designed.”.*

23               (2) *STANDARD SETTING AUTHORITY.—Section*  
 24       *325(ee) of the Energy Policy and Conservation Act*  
 25       *(42 U.S.C. 6295(ee)) is amended by inserting “(other*

1        *than specialty application mercury vapor lamp bal-*  
 2        *lasts)” after “ballasts”.*

3        (d) *ENERGY CONSERVATION STANDARDS.—Section*  
 4        *325 of the Energy Policy and Conservation Act (42 U.S.C.*  
 5        *6295) is amended—*

6                (1) *in subsection (v)—*

7                        (A) *in the subsection heading, by striking*  
 8                        *“CEILING FANS AND”;*

9                        (B) *by striking paragraph (1); and*

10                      (C) *by redesignating paragraphs (2)*  
 11                      *through (4) as paragraphs (1) through (3), re-*  
 12                      *spectively; and*

13                (2) *in subsection (ff)—*

14                      (A) *in paragraph (1)(A)—*

15                                (i) *by striking clause (iii);*

16                                (ii) *by redesignating clause (iv) as*  
 17                                *clause (iii); and*

18                                (iii) *in clause (iii)(II) (as so redesign-*  
 19                                *ated), by inserting “fans sold for” before*  
 20                                *“outdoor”; and*

21                      (B) *in paragraph (4)(C)—*

22                                (i) *in the matter preceding clause (i),*  
 23                                *by striking “subparagraph (B)” and insert-*  
 24                                *ing “subparagraph (A)”;* and

1                   (ii) by striking clause (ii) and insert-  
2                   ing the following:

3                   “(ii) shall be packaged with lamps to fill all  
4                   sockets.”;

5                   (C) in paragraph (6), by redesignating sub-  
6                   paragraphs (C) and (D) as clauses (i) and (ii),  
7                   respectively, of subparagraph (B); and

8                   (D) in paragraph (7), by striking “327” the  
9                   second place it appears and inserting “324”.

10                   ***Subtitle B—Lighting Energy***  
11                   ***Efficiency***

12                   ***SEC. 321. EFFICIENT LIGHT BULBS.***

13                   (a) *ENERGY EFFICIENCY STANDARDS FOR GENERAL*  
14                   *SERVICE INCANDESCENT LAMPS.—*

15                   (1) *DEFINITION OF GENERAL SERVICE INCAN-*  
16                   *DESCENT LAMP.—Section 321(30) of the Energy Pol-*  
17                   *icy and Conservation Act (42 U.S.C. 6291(30)) is*  
18                   *amended—*

19                   (A) by striking subparagraph (D) and in-  
20                   serting the following:

21                   “(D) *GENERAL SERVICE INCANDESCENT*  
22                   *LAMP.—*

23                   “(i) *IN GENERAL.—The term ‘general*  
24                   *service incandescent lamp’ means a stand-*

ard incandescent or halogen type lamp  
that—

“(I) is intended for general service  
applications;

“(II) has a medium screw base;

“(III) has a lumen range of not  
less than 310 lumens and not more  
than 2,600 lumens; and

“(IV) is capable of being operated  
at a voltage range at least partially  
within 110 and 130 volts.

“(ii) *EXCLUSIONS.*—The term ‘general  
service incandescent lamp’ does not include  
the following incandescent lamps:

“(I) An appliance lamp.

“(II) A black light lamp.

“(III) A bug lamp.

“(IV) A colored lamp.

“(V) An infrared lamp.

“(VI) A left-hand thread lamp.

“(VII) A marine lamp.

“(VIII) A marine signal service  
lamp.

“(IX) A mine service lamp.

“(X) A plant light lamp.



1 “(XI) *A reflector lamp.*

2 “(XII) *A rough service lamp.*

3 “(XIII) *A shatter-resistant lamp*  
 4 *(including a shatter-proof lamp and a*  
 5 *shatter-protected lamp).*

6 “(XIV) *A sign service lamp.*

7 “(XV) *A silver bowl lamp.*

8 “(XVI) *A showcase lamp.*

9 “(XVII) *A 3-way incandescent*  
 10 *lamp.*

11 “(XVIII) *A traffic signal lamp.*

12 “(XIX) *A vibration service lamp.*

13 “(XX) *A G shape lamp (as de-*  
 14 *defined in ANSI C78.20–2003 and*  
 15 *C79.1–2002 with a diameter of 5*  
 16 *inches or more.*

17 “(XXI) *A T shape lamp (as de-*  
 18 *defined in ANSI C78.20–2003 and*  
 19 *C79.1–2002) and that uses not more*  
 20 *than 40 watts or has a length of more*  
 21 *than 10 inches.*

22 “(XXII) *A B, BA, CA, F, G16–1/*  
 23 *2, G–25, G30, S, or M–14 lamp (as de-*  
 24 *defined in ANSI C79.1–2002 and ANSI*  
 25 *C78.20–2003) of 40 watts or less.”; and*

1                   *(B) by adding at the end the following:*

2                   *“(T) APPLIANCE LAMP.—The term ‘appli-*  
 3 *ance lamp’ means any lamp that—*

4                   *“(i) is specifically designed to operate*  
 5 *in a household appliance, has a maximum*  
 6 *wattage of 40 watts, and is sold at retail,*  
 7 *including an oven lamp, refrigerator lamp,*  
 8 *and vacuum cleaner lamp; and*

9                   *“(ii) is designated and marketed for*  
 10 *the intended application, with—*

11                   *“(I) the designation on the lamp*  
 12 *packaging; and*

13                   *“(II) marketing materials that*  
 14 *identify the lamp as being for appli-*  
 15 *ance use.*

16                   *“(U) CANDELABRA BASE INCANDESCENT*  
 17 *LAMP.—The term ‘candelabra base incandescent*  
 18 *lamp’ means a lamp that uses candelabra screw*  
 19 *base as described in ANSI C81.61–2006, Speci-*  
 20 *fications for Electric Bases, common designa-*  
 21 *tions E11 and E12.*

22                   *“(V) INTERMEDIATE BASE INCANDESCENT*  
 23 *LAMP.—The term ‘intermediate base incandes-*  
 24 *cent lamp’ means a lamp that uses an inter-*  
 25 *mediate screw base as described in ANSI*

1           C81.61–2006, *Specifications for Electric Bases*,  
 2           *common designation E17.*

3           “(W) *MODIFIED SPECTRUM.*—*The term*  
 4           *‘modified spectrum’ means, with respect to an*  
 5           *incandescent lamp, an incandescent lamp that—*

6                   “(i) *is not a colored incandescent*  
 7                   *lamp; and*

8                   “(ii) *when operated at the rated volt-*  
 9                   *age and wattage of the incandescent lamp—*

10                   “(I) *has a color point with (x,y)*  
 11                   *chromaticity coordinates on the Com-*  
 12                   *mission Internationale de l’Eclairage*  
 13                   *(C.I.E.) 1931 chromaticity diagram*  
 14                   *that lies below the black-body locus;*  
 15                   *and*

16                   “(II) *has a color point with (x,y)*  
 17                   *chromaticity coordinates on the C.I.E.*  
 18                   *1931 chromaticity diagram that lies at*  
 19                   *least 4 MacAdam steps (as referenced*  
 20                   *in IESNA LM16) distant from the*  
 21                   *color point of a clear lamp with the*  
 22                   *same filament and bulb shape, oper-*  
 23                   *ated at the same rated voltage and*  
 24                   *wattage.*

1                   “(X) *ROUGH SERVICE LAMP*.—The term  
2                   ‘rough service lamp’ means a lamp that—

3                   “(i) has a minimum of 5 supports  
4                   with filament configurations that are C-7A,  
5                   C-11, C-17, and C-22 as listed in Figure  
6                   6-12 of the 9th edition of the *IESNA Light-*  
7                   *ing handbook*, or similar configurations  
8                   where lead wires are not counted as sup-  
9                   ports; and

10                  “(ii) is designated and marketed spe-  
11                  cifically for ‘rough service’ applications,  
12                  with—

13                         “(I) the designation appearing on  
14                         the lamp packaging; and

15                         “(II) marketing materials that  
16                         identify the lamp as being for rough  
17                         service.

18                   “(Y) *3-WAY INCANDESCENT LAMP*.—The  
19                   term ‘3-way incandescent lamp’ includes an in-  
20                   candescent lamp that—

21                   “(i) employs 2 filaments, operated sep-  
22                   arately and in combination, to provide 3  
23                   light levels; and

1                   “(ii) is designated on the lamp pack-  
 2                   aging and marketing materials as being a  
 3                   3-way incandescent lamp.

4                   “(Z) SHATTER-RESISTANT LAMP, SHATTER-  
 5                   PROOF LAMP, OR SHATTER-PROTECTED LAMP.—  
 6                   The terms ‘shatter-resistant lamp’, ‘shatter-proof  
 7                   lamp’, and ‘shatter-protected lamp’ mean a lamp  
 8                   that—

9                   “(i) has a coating or equivalent tech-  
 10                  nology that is compliant with NSF/ANSI  
 11                  51 and is designed to contain the glass if  
 12                  the glass envelope of the lamp is broken; and

13                  “(ii) is designated and marketed for  
 14                  the intended application, with—

15                  “(I) the designation on the lamp  
 16                  packaging; and

17                  “(II) marketing materials that  
 18                  identify the lamp as being shatter-re-  
 19                  sistant, shatter-proof, or shatter-pro-  
 20                  tected.

21                  “(AA) VIBRATION SERVICE LAMP.—The  
 22                  term ‘vibration service lamp’ means a lamp  
 23                  that—

24                  “(i) has filament configurations that  
 25                  are C-5, C-7A, or C-9, as listed in Figure

1           6–12 of the 9th Edition of the IESNA  
 2           *Lighting Handbook* or similar configura-  
 3           tions;

4           “(ii) has a maximum wattage of 60  
 5           watts;

6           “(iii) is sold at retail in packages of 2  
 7           lamps or less; and

8           “(iv) is designated and marketed spe-  
 9           cifically for vibration service or vibration-  
 10          resistant applications, with—

11           “(I) the designation appearing on  
 12          the lamp packaging; and

13           “(II) marketing materials that  
 14          identify the lamp as being vibration  
 15          service only.

16          “(BB) *GENERAL SERVICE LAMP*.—

17           “(i) *IN GENERAL*.—The term ‘general  
 18          service lamp’ includes—

19           “(I) general service incandescent  
 20          lamps;

21           “(II) compact fluorescent lamps;

22           “(III) general service light-emit-  
 23          ting diode (LED or OLED) lamps;  
 24          and

1                   “(IV) *any other lamps that the*  
 2                   *Secretary determines are used to sat-*  
 3                   *isfy lighting applications traditionally*  
 4                   *served by general service incandescent*  
 5                   *lamps.*

6                   “(ii) *EXCLUSIONS.—The term ‘general*  
 7                   *service lamp’ does not include—*

8                   “(I) *any lighting application or*  
 9                   *bulb shape described in any of sub-*  
 10                   *clauses (I) through (XXII) of subpara-*  
 11                   *graph (D)(ii); or*

12                   “(II) *any general service fluores-*  
 13                   *cent lamp or incandescent reflector*  
 14                   *lamp.*

15                   “(CC) *LIGHT-EMITTING DIODE; LED.—*

16                   “(i) *IN GENERAL.—The terms ‘light-*  
 17                   *emitting diode’ and ‘LED’ means a p-n*  
 18                   *junction solid state device the radiated out-*  
 19                   *put of which is a function of the physical*  
 20                   *construction, material used, and exciting*  
 21                   *current of the device.*

22                   “(ii) *OUTPUT.—The output of a light-*  
 23                   *emitting diode may be in—*

24                   “(I) *the infrared region;*

25                   “(II) *the visible region; or*

1 “(III) the ultraviolet region.

2 “(DD) ORGANIC LIGHT-EMITTING DIODE;  
3 OLED.—The terms ‘organic light-emitting diode’  
4 and ‘OLED’ mean a thin-film light-emitting de-  
5 vice that typically consists of a series of organic  
6 layers between 2 electrical contacts (electrodes).

7 “(EE) COLORED INCANDESCENT LAMP.—  
8 The term ‘colored incandescent lamp’ means an  
9 incandescent lamp designated and marketed as a  
10 colored lamp that has—

11 “(i) a color rendering index of less  
12 than 50, as determined according to the test  
13 method given in C.I.E. publication 13.3–  
14 1995; or

15 “(ii) a correlated color temperature of  
16 less than 2,500K, or greater than 4,600K,  
17 where correlated temperature is computed  
18 according to the Journal of Optical Society  
19 of America, Vol. 58, pages 1528–1595  
20 (1986).”.

21 (2) COVERAGE.—Section 322(a)(14) of the En-  
22 ergy Policy and Conservation Act (42 U.S.C.  
23 6292(a)(14)) is amended by inserting “, general serv-  
24 ice incandescent lamps,” after “fluorescent lamps”.



(3) *ENERGY CONSERVATION STANDARDS*.—*Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—*

*(A) in subsection (i)—*

*(i) in the section heading, by inserting “, GENERAL SERVICE INCANDESCENT LAMPS, INTERMEDIATE BASE INCANDESCENT LAMPS, CANDELABRA BASE INCANDESCENT LAMPS,” after “FLUORESCENT LAMPS”;*

*(ii) in paragraph (1)—*

*(I) in subparagraph (A)—*

*(aa) by inserting “, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent lamps,” after “fluorescent lamps”;*

*(bb) by inserting “, new maximum wattage,” after “lamp efficacy”; and*

*(cc) by inserting after the table entitled “INCANDESCENT REFLECTOR LAMPS” the following:*

<i>Rated Lumen Ranges</i>	<i>Maximum Rate Wattage</i>	<i>Minimum Rate Life- time</i>	<i>Effective Date</i>
1490–2600	72	1,000 hrs	1/1/2012
1050–1489	53	1,000 hrs	1/1/2013
750–1049	43	1,000 hrs	1/1/2014
310–749	29	1,000 hrs	1/1/2014

**“MODIFIED SPECTRUM GENERAL SERVICE INCANDESCENT LAMPS**

<i>Rated Lumen Ranges</i>	<i>Maximum Rate Wattage</i>	<i>Minimum Rate Life- time</i>	<i>Effective Date</i>
<i>1118–1950</i>	<i>72</i>	<i>1,000 hrs</i>	<i>1/1/2012</i>
<i>788–1117</i>	<i>53</i>	<i>1,000 hrs</i>	<i>1/1/2013</i>
<i>563–787</i>	<i>43</i>	<i>1,000 hrs</i>	<i>1/1/2014</i>
<i>232–562</i>	<i>29</i>	<i>1,000 hrs</i>	<i>1/1/2014”;</i>

1 *and*

2 *(II) by striking subparagraph (B)*

3 *and inserting the following:*

4 *“(B) APPLICATION.—*

5 *“(i) APPLICATION CRITERIA.—This*

6 *subparagraph applies to each lamp that—*

7 *“(I) is intended for a general*

8 *service or general illumination appli-*

9 *cation (whether incandescent or not);*

10 *“(II) has a medium screw base or*

11 *any other screw base not defined in*

12 *ANSI C81.61–2006;*

13 *“(III) is capable of being operated*

14 *at a voltage at least partially within*

15 *the range of 110 to 130 volts; and*

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1                   “(IV) *is manufactured or im-*  
2                   *ported after December 31, 2011.*

3                   “(ii) *REQUIREMENT.—For purposes of*  
4                   *this paragraph, each lamp described in*  
5                   *clause (i) shall have a color rendering index*  
6                   *that is greater than or equal to—*

7                   “(I) *80 for nonmodified spectrum*  
8                   *lamps; or*

9                   “(II) *75 for modified spectrum*  
10                  *lamps.*

11                  “(C) *CANDELABRA INCANDESCENT LAMPS*  
12                  *AND INTERMEDIATE BASE INCANDESCENT*  
13                  *LAMPS.—*

14                  “(i) *CANDELABRA BASE INCANDESCENT*  
15                  *LAMPS.—A candelabra base incandescent*  
16                  *lamp shall not exceed 60 rated watts.*

17                  “(ii) *INTERMEDIATE BASE INCANDES-*  
18                  *CENT LAMPS.—An intermediate base incan-*  
19                  *descent lamp shall not exceed 40 rated*  
20                  *watts.*

21                  “(D) *EXEMPTIONS.—*

22                  “(i) *PETITION.—Any person may peti-*  
23                  *tion the Secretary for an exemption for a*  
24                  *type of general service lamp from the re-*  
25                  *quirements of this subsection.*

1           “(ii) *CRITERIA.—The Secretary may*  
 2           *grant an exemption under clause (i) only to*  
 3           *the extent that the Secretary finds, after a*  
 4           *hearing and opportunity for public com-*  
 5           *ment, that it is not technically feasible to*  
 6           *serve a specialized lighting application*  
 7           *(such as a military, medical, public safety,*  
 8           *or certified historic lighting application)*  
 9           *using a lamp that meets the requirements of*  
 10           *this subsection.*

11           “(iii) *ADDITIONAL CRITERION.—To*  
 12           *grant an exemption for a product under*  
 13           *this subparagraph, the Secretary shall in-*  
 14           *clude, as an additional criterion, that the*  
 15           *exempted product is unlikely to be used in*  
 16           *a general service lighting application.*

17           “(E) *EXTENSION OF COVERAGE.—*

18           “(i) *PETITION.—Any person may peti-*  
 19           *tion the Secretary to establish standards for*  
 20           *lamp shapes or bases that are excluded from*  
 21           *the definition of general service lamps.*

22           “(ii) *INCREASED SALES OF EXEMPTED*  
 23           *LAMPS.—The petition shall include evidence*  
 24           *that the availability or sales of exempted in-*  
 25           *candescent lamps have increased signifi-*

1           cantly since the date on which the stand-  
2           ards on general service incandescent lamps  
3           were established.

4           “(iii) *CRITERIA.*—The Secretary shall  
5           grant a petition under clause (i) if the Sec-  
6           retary finds that—

7                   “(I) the petition presents evidence  
8                   that demonstrates that commercial  
9                   availability or sales of exempted incan-  
10                  descent lamp types have increased sig-  
11                  nificantly since the standards on gen-  
12                  eral service lamps were established and  
13                  likely are being widely used in general  
14                  lighting applications; and

15                  “(II) significant energy savings  
16                  could be achieved by covering exempted  
17                  products, as determined by the Sec-  
18                  retary based on sales data provided to  
19                  the Secretary from manufacturers and  
20                  importers.

21           “(iv) *NO PRESUMPTION.*—The grant of  
22           a petition under this subparagraph shall  
23           create no presumption with respect to the  
24           determination of the Secretary with respect

1           to any criteria under a rulemaking con-  
2           ducted under this section.

3           “(v) *EXPEDITED PROCEEDING.*—If the  
4           Secretary grants a petition for a lamp  
5           shape or base under this subparagraph, the  
6           Secretary shall—

7                       “(I) conduct a rulemaking to de-  
8                       termine standards for the exempted  
9                       lamp shape or base; and

10                      “(II) complete the rulemaking not  
11                      later than 18 months after the date on  
12                      which notice is provided granting the  
13                      petition.

14           “(F) *DEFINITION OF EFFECTIVE DATE.*—In  
15           this paragraph, except as otherwise provided in  
16           a table contained in subparagraph (A), the term  
17           ‘effective date’ means the last day of the month  
18           specified in the table that follows October 24,  
19           1992.”;

20                      (iii) in paragraph (5), in the first sen-  
21                      tence, by striking “and general service in-  
22                      candescent lamps”;

23                      (iv) by redesignating paragraphs (6)  
24                      and (7) as paragraphs (7) and (8), respec-  
25                      tively; and

1                   (v) by inserting after paragraph (5)  
2                   the following:

3                   “(6) STANDARDS FOR GENERAL SERVICE  
4 LAMPS.—

5                   “(A) RULEMAKING BEFORE JANUARY 1,  
6 2014.—

7                   “(i) IN GENERAL.—Not later than Jan-  
8 uary 1, 2014, the Secretary shall initiate a  
9 rulemaking procedure to determine  
10 whether—

11                   “(I) standards in effect for general  
12 service lamps should be amended to es-  
13 tablish more stringent standards than  
14 the standards specified in paragraph  
15 (1)(A); and

16                   “(II) the exemptions for certain  
17 incandescent lamps should be main-  
18 tained or discontinued based, in part,  
19 on exempted lamp sales collected by the  
20 Secretary from manufacturers.

21                   “(ii) SCOPE.—The rulemaking—

22                   “(I) shall not be limited to incan-  
23 descent lamp technologies; and

1                   “(II) shall include consideration  
2                   of a minimum standard of 45 lumens  
3                   per watt for general service lamps.

4                   “(iii) AMENDED STANDARDS.—If the  
5                   Secretary determines that the standards in  
6                   effect for general service incandescent lamps  
7                   should be amended, the Secretary shall pub-  
8                   lish a final rule not later than January 1,  
9                   2017, with an effective date that is not ear-  
10                  lier than 3 years after the date on which the  
11                  final rule is published.

12                  “(iv) PHASED-IN EFFECTIVE DATES.—  
13                  The Secretary shall consider phased-in effec-  
14                  tive dates under this subparagraph after  
15                  considering—

16                       “(I) the impact of any amend-  
17                       ment on manufacturers, retiring and  
18                       repurposing existing equipment,  
19                       stranded investments, labor contracts,  
20                       workers, and raw materials; and

21                       “(II) the time needed to work with  
22                       retailers and lighting designers to re-  
23                       vise sales and marketing strategies.

24                       “(v) BACKSTOP REQUIREMENT.—If the  
25                       Secretary fails to complete a rulemaking in



1           *accordance with clauses (i) through (iv) or*  
 2           *if the final rule does not produce savings*  
 3           *that are greater than or equal to the savings*  
 4           *from a minimum efficacy standard of 45*  
 5           *lumens per watt, effective beginning Janu-*  
 6           *ary 1, 2020, the Secretary shall prohibit the*  
 7           *sale of any general service lamp that does*  
 8           *not meet a minimum efficacy standard of*  
 9           *45 lumens per watt.*

10           “(vi) *STATE PREEMPTION.*—Neither  
 11           *section 327(b) nor any other provision of*  
 12           *law shall preclude California or Nevada*  
 13           *from adopting, effective beginning on or*  
 14           *after January 1, 2018—*

15                     “(I) *a final rule adopted by the*  
 16                     *Secretary in accordance with clauses*  
 17                     *(i) through (iv);*

18                     “(II) *if a final rule described in*  
 19                     *subclause (I) has not been adopted, the*  
 20                     *backstop requirement under clause (v);*  
 21                     *or*

22                     “(III) *in the case of California, if*  
 23                     *a final rule described in subclause (I)*  
 24                     *has not been adopted, any California*  
 25                     *regulations relating to these covered*

1                   *products adopted pursuant to State*  
 2                   *statute in effect as of the date of enact-*  
 3                   *ment of the Energy Independence and*  
 4                   *Security Act of 2007.*

5                   “(B) *RULEMAKING BEFORE JANUARY 1,*  
 6                   *2020.—*

7                   “(i) *IN GENERAL.—Not later than Jan-*  
 8                   *uary 1, 2020, the Secretary shall initiate a*  
 9                   *rulemaking procedure to determine*  
 10                   *whether—*

11                   “(I) *standards in effect for general*  
 12                   *service incandescent lamps should be*  
 13                   *amended to reflect lumen ranges with*  
 14                   *more stringent maximum wattage than*  
 15                   *the standards specified in paragraph*  
 16                   *(1)(A); and*

17                   “(II) *the exemptions for certain*  
 18                   *incandescent lamps should be main-*  
 19                   *tained or discontinued based, in part,*  
 20                   *on exempted lamp sales data collected*  
 21                   *by the Secretary from manufacturers.*

22                   “(ii) *SCOPE.—The rulemaking shall*  
 23                   *not be limited to incandescent lamp tech-*  
 24                   *nologies.*

1           “(iii) *AMENDED STANDARDS.*—If the  
 2           Secretary determines that the standards in  
 3           effect for general service incandescent lamps  
 4           should be amended, the Secretary shall pub-  
 5           lish a final rule not later than January 1,  
 6           2022, with an effective date that is not ear-  
 7           lier than 3 years after the date on which the  
 8           final rule is published.

9           “(iv) *PHASED-IN EFFECTIVE DATES.*—  
 10          The Secretary shall consider phased-in effec-  
 11          tive dates under this subparagraph after  
 12          considering—

13               “(I) the impact of any amend-  
 14               ment on manufacturers, retiring and  
 15               repurposing existing equipment,  
 16               stranded investments, labor contracts,  
 17               workers, and raw materials; and

18               “(II) the time needed to work with  
 19               retailers and lighting designers to re-  
 20               vise sales and marketing strategies.”;  
 21               and

22               (B) in subsection (l), by adding at the end  
 23               the following:

24               “(4) *ENERGY EFFICIENCY STANDARDS FOR CER-*  
 25               *TAIN LAMPS.*—

1           “(A) *IN GENERAL.*—*The Secretary shall*  
 2           *prescribe an energy efficiency standard for rough*  
 3           *service lamps, vibration service lamps, 3-way in-*  
 4           *candescent lamps, 2,601–3,300 lumen general*  
 5           *service incandescent lamps, and shatter-resistant*  
 6           *lamps only in accordance with this paragraph.*

7           “(B) *BENCHMARKS.*—*Not later than 1 year*  
 8           *after the date of enactment of this paragraph, the*  
 9           *Secretary, in consultation with the National*  
 10          *Electrical Manufacturers Association, shall—*

11           “(i) *collect actual data for United*  
 12           *States unit sales for each of calendar years*  
 13           *1990 through 2006 for each of the 5 types*  
 14           *of lamps described in subparagraph (A) to*  
 15           *determine the historical growth rate of the*  
 16           *type of lamp; and*

17           “(ii) *construct a model for each type of*  
 18           *lamp based on coincident economic indica-*  
 19           *tors that closely match the historical annual*  
 20           *growth rate of the type of lamp to provide*  
 21           *a neutral comparison benchmark to model*  
 22           *future unit sales after calendar year 2006.*

23           “(C) *ACTUAL SALES DATA.*—

24           “(i) *IN GENERAL.*—*Effective for each of*  
 25           *calendar years 2010 through 2025, the Sec-*

1           retary, in consultation with the National  
2           Electrical Manufacturers Association,  
3           shall—

4                   “(I) collect actual United States  
5                   unit sales data for each of 5 types of  
6                   lamps described in subparagraph (A);  
7                   and

8                   “(II) not later than 90 days after  
9                   the end of each calendar year, compare  
10                  the lamp sales in that year with the  
11                  sales predicted by the comparison  
12                  benchmark for each of the 5 types of  
13                  lamps described in subparagraph (A).

14                  “(ii) CONTINUATION OF TRACKING.—

15                   “(I) DETERMINATION.—Not later  
16                   than January 1, 2023, the Secretary  
17                   shall determine if actual sales data  
18                   should be tracked for the lamp types  
19                   described in subparagraph (A) after  
20                   calendar year 2025.

21                   “(II) CONTINUATION.—If the Sec-  
22                   retary finds that the market share of a  
23                   lamp type described in subparagraph  
24                   (A) could significantly erode the mar-  
25                   ket share for general service lamps, the

1                    *Secretary shall continue to track the*  
2                    *actual sales data for the lamp type.*

3                    *“(D) ROUGH SERVICE LAMPS.—*

4                    *“(i) IN GENERAL.—Effective beginning*  
5                    *with the first year that the reported annual*  
6                    *sales rate for rough service lamps dem-*  
7                    *onstrates actual unit sales of rough service*  
8                    *lamps that achieve levels that are at least*  
9                    *100 percent higher than modeled unit sales*  
10                   *for that same year, the Secretary shall—*

11                   *“(I) not later than 90 days after*  
12                   *the end of the previous calendar year,*  
13                   *issue a finding that the index has been*  
14                   *exceeded; and*

15                   *“(II) not later than the date that*  
16                   *is 1 year after the end of the previous*  
17                   *calendar year, complete an accelerated*  
18                   *rulemaking to establish an energy con-*  
19                   *servation standard for rough service*  
20                   *lamps.*

21                   *“(ii) BACKSTOP REQUIREMENT.—If the*  
22                   *Secretary fails to complete an accelerated*  
23                   *rulemaking in accordance with clause*  
24                   *(i)(II), effective beginning 1 year after the*  
25                   *date of the issuance of the finding under*

1 *clause (i)(I), the Secretary shall require*  
2 *rough service lamps to—*

3 *“(I) have a shatter-proof coating*  
4 *or equivalent technology that is com-*  
5 *pliant with NSF/ANSI 51 and is de-*  
6 *signed to contain the glass if the glass*  
7 *envelope of the lamp is broken and to*  
8 *provide effective containment over the*  
9 *life of the lamp;*

10 *“(II) have a maximum 40-watt*  
11 *limitation; and*

12 *“(III) be sold at retail only in a*  
13 *package containing 1 lamp.*

14 *“(E) VIBRATION SERVICE LAMPS.—*

15 *“(i) IN GENERAL.—Effective beginning*  
16 *with the first year that the reported annual*  
17 *sales rate for vibration service lamps dem-*  
18 *onstrates actual unit sales of vibration serv-*  
19 *ice lamps that achieve levels that are at*  
20 *least 100 percent higher than modeled unit*  
21 *sales for that same year, the Secretary*  
22 *shall—*

23 *“(I) not later than 90 days after*  
24 *the end of the previous calendar year,*

1           *issue a finding that the index has been*  
 2           *exceeded; and*

3                   “(II) *not later than the date that*  
 4           *is 1 year after the end of the previous*  
 5           *calendar year, complete an accelerated*  
 6           *rulemaking to establish an energy con-*  
 7           *servation standard for vibration service*  
 8           *lamps.*

9                   “(ii) *BACKSTOP REQUIREMENT.—If the*  
 10          *Secretary fails to complete an accelerated*  
 11          *rulemaking in accordance with clause*  
 12          *(i)(II), effective beginning 1 year after the*  
 13          *date of the issuance of the finding under*  
 14          *clause (i)(I), the Secretary shall require vi-*  
 15          *bration service lamps to—*

16                   “(I) *have a maximum 40-watt*  
 17           *limitation; and*

18                   “(II) *be sold at retail only in a*  
 19           *package containing 1 lamp.*

20                   “(F) *3-WAY INCANDESCENT LAMPS.—*

21                   “(i) *IN GENERAL.—Effective beginning*  
 22          *with the first year that the reported annual*  
 23          *sales rate for 3-way incandescent lamps*  
 24          *demonstrates actual unit sales of 3-way in-*  
 25          *candescent lamps that achieve levels that*



1           are at least 100 percent higher than mod-  
2           eled unit sales for that same year, the Sec-  
3           retary shall—

4                   “(I) not later than 90 days after  
5                   the end of the previous calendar year,  
6                   issue a finding that the index has been  
7                   exceeded; and

8                   “(II) not later than the date that  
9                   is 1 year after the end of the previous  
10                  calendar year, complete an accelerated  
11                  rulemaking to establish an energy con-  
12                  servation standard for 3-way incandes-  
13                  cent lamps.

14                  “(ii) *BACKSTOP REQUIREMENT.*—If the  
15                  Secretary fails to complete an accelerated  
16                  rulemaking in accordance with clause  
17                  (i)(II), effective beginning 1 year after the  
18                  date of issuance of the finding under clause  
19                  (i)(I), the Secretary shall require that—

20                   “(I) each filament in a 3-way in-  
21                   candescent lamp meet the new max-  
22                   imum wattage requirements for the re-  
23                   spective lumen range established under  
24                   subsection (i)(1)(A); and

1                   “(II) 3-way lamps be sold at re-  
 2                   tail only in a package containing 1  
 3                   lamp.

4                   “(G) 2,601–3,300 LUMEN GENERAL SERVICE  
 5                   INCANDESCENT LAMPS.—Effective beginning  
 6                   with the first year that the reported annual sales  
 7                   rate demonstrates actual unit sales of 2,601–  
 8                   3,300 lumen general service incandescent lamps  
 9                   in the lumen range of 2,601 through 3,300  
 10                  lumens (or, in the case of a modified spectrum,  
 11                  in the lumen range of 1,951 through 2,475  
 12                  lumens) that achieve levels that are at least 100  
 13                  percent higher than modeled unit sales for that  
 14                  same year, the Secretary shall impose—

15                  “(i) a maximum 95-watt limitation on  
 16                  general service incandescent lamps in the  
 17                  lumen range of 2,601 through 3,300 lumens;  
 18                  and

19                  “(ii) a requirement that those lamps be  
 20                  sold at retail only in a package containing  
 21                  1 lamp.

22                  “(H) SHATTER-RESISTANT LAMPS.—

23                  “(i) IN GENERAL.—Effective beginning  
 24                  with the first year that the reported annual  
 25                  sales rate for shatter-resistant lamps dem-

1            *onstrates actual unit sales of shatter-resist-*  
2            *ant lamps that achieve levels that are at*  
3            *least 100 percent higher than modeled unit*  
4            *sales for that same year, the Secretary*  
5            *shall—*

6                    *“(I) not later than 90 days after*  
7                    *the end of the previous calendar year,*  
8                    *issue a finding that the index has been*  
9                    *exceeded; and*

10                   *“(II) not later than the date that*  
11                   *is 1 year after the end of the previous*  
12                   *calendar year, complete an accelerated*  
13                   *rulemaking to establish an energy con-*  
14                   *servation standard for shatter-resistant*  
15                   *lamps.*

16                   *“(ii) BACKSTOP REQUIREMENT.—If the*  
17                   *Secretary fails to complete an accelerated*  
18                   *rulemaking in accordance with clause*  
19                   *(i)(II), effective beginning 1 year after the*  
20                   *date of issuance of the finding under clause*  
21                   *(i)(I), the Secretary shall impose—*

22                   *“(I) a maximum wattage limita-*  
23                   *tion of 40 watts on shatter resistant*  
24                   *lamps; and*

1                   “(II) a requirement that those  
2                   lamps be sold at retail only in a pack-  
3                   age containing 1 lamp.

4                   “(I) RULEMAKINGS BEFORE JANUARY 1,  
5                   2025.—

6                   “(i) IN GENERAL.—Except as provided  
7                   in clause (ii), if the Secretary issues a final  
8                   rule prior to January 1, 2025, establishing  
9                   an energy conservation standard for any of  
10                  the 5 types of lamps for which data collec-  
11                  tion is required under any of subpara-  
12                  graphs (D) through (G), the requirement to  
13                  collect and model data for that type of lamp  
14                  shall terminate unless, as part of the rule-  
15                  making, the Secretary determines that con-  
16                  tinued tracking is necessary.

17                  “(ii) BACKSTOP REQUIREMENT.—If the  
18                  Secretary imposes a backstop requirement  
19                  as a result of a failure to complete an accel-  
20                  erated rulemaking in accordance with  
21                  clause (i)(II) of any of subparagraphs (D)  
22                  through (G), the requirement to collect and  
23                  model data for the applicable type of lamp  
24                  shall continue for an additional 2 years

1                   *after the effective date of the backstop re-*  
 2                   *quirement.”.*

3           **(b) CONSUMER EDUCATION AND LAMP LABELING.—**  
 4   *Section 324(a)(2)(C) of the Energy Policy and Conserva-*  
 5   *tion Act (42 U.S.C. 6294(a)(2)(C)) is amended by adding*  
 6   *at the end the following:*

7                   **“(iii) RULEMAKING TO CONSIDER EF-**  
 8                   **FECTIVENESS OF LAMP LABELING.—**

9                   **“(I) IN GENERAL.—***Not later than*  
 10                   *1 year after the date of enactment of*  
 11                   *this clause, the Commission shall ini-*  
 12                   *tiate a rulemaking to consider—*

13                   **“(aa) the effectiveness of cur-**  
 14                   *rent lamp labeling for power lev-*  
 15                   *els or watts, light output or*  
 16                   *lumens, and lamp lifetime; and*

17                   **“(bb) alternative labeling ap-**  
 18                   *proaches that will help consumers*  
 19                   *to understand new high-efficiency*  
 20                   *lamp products and to base the*  
 21                   *purchase decisions of the con-*  
 22                   *sumers on the most appropriate*  
 23                   *source that meets the requirements*  
 24                   *of the consumers for lighting level,*

1                   *light quality, lamp lifetime, and*  
 2                   *total lifecycle cost.*

3                   “(II) *COMPLETION.*—The *Com-*  
 4                   *mission shall—*

5                   “*(aa) complete the rule-*  
 6                   *making not later than the date*  
 7                   *that is 30 months after the date of*  
 8                   *enactment of this clause; and*

9                   “*(bb) consider reopening the*  
 10                   *rulemaking not later than 180*  
 11                   *days before the effective dates of*  
 12                   *the standards for general service*  
 13                   *incandescent lamps established*  
 14                   *under section 325(i)(1)(A), if the*  
 15                   *Commission determines that fur-*  
 16                   *ther labeling changes are needed*  
 17                   *to help consumers understand*  
 18                   *lamp alternatives.”.*

19                   *(c) MARKET ASSESSMENTS AND CONSUMER AWARE-*  
 20                   *NESS PROGRAM.—*

21                   “(1) *IN GENERAL.*—*In cooperation with the Ad-*  
 22                   *ministrator of the Environmental Protection Agency,*  
 23                   *the Secretary of Commerce, the Federal Trade Com-*  
 24                   *mission, lighting and retail industry associations, en-*  
 25                   *ergy efficiency organizations, and any other entities*

1       *that the Secretary of Energy determines to be appro-*  
2       *priate, the Secretary of Energy shall—*

3               *(A) conduct an annual assessment of the*  
4               *market for general service lamps and compact*  
5               *fluorescent lamps—*

6                   *(i) to identify trends in the market*  
7                   *shares of lamp types, efficiencies, and light*  
8                   *output levels purchased by residential and*  
9                   *nonresidential consumers; and*

10                  *(ii) to better understand the degree to*  
11                  *which consumer decisionmaking is based on*  
12                  *lamp power levels or watts, light output or*  
13                  *lumens, lamp lifetime, and other factors, in-*  
14                  *cluding information required on labels*  
15                  *mandated by the Federal Trade Commis-*  
16                  *sion;*

17                *(B) provide the results of the market assess-*  
18                *ment to the Federal Trade Commission for con-*  
19                *sideration in the rulemaking described in section*  
20                *324(a)(2)(C)(iii) of the Energy Policy and Con-*  
21                *servation Act (42 U.S.C. 6294(a)(2)(C)(iii)); and*

22                *(C) in cooperation with industry trade as-*  
23                *sociations, lighting industry members, utilities,*  
24                *and other interested parties, carry out a*  
25                *proactive national program of consumer aware-*

1            *ness, information, and education that broadly*  
 2            *uses the media and other effective communica-*  
 3            *tion techniques over an extended period of time*  
 4            *to help consumers understand the lamp labels*  
 5            *and make energy-efficient lighting choices that*  
 6            *meet the needs of consumers.*

7            (2) *AUTHORIZATION OF APPROPRIATIONS.—*  
 8            *There is authorized to be appropriated to carry out*  
 9            *this subsection \$10,000,000 for each of fiscal years*  
 10           *2009 through 2012.*

11           (d) *GENERAL RULE OF PREEMPTION FOR ENERGY*  
 12           *CONSERVATION STANDARDS BEFORE FEDERAL STANDARD*  
 13           *BECOMES EFFECTIVE FOR A PRODUCT.—Section 327(b)(1)*  
 14           *of the Energy Policy and Conservation Act (42 U.S.C.*  
 15           *6297(b)(1)) is amended—*

16           (1) *by inserting “(A)” after “(1)”;*

17           (2) *by inserting “or” after the semicolon at the*  
 18           *end; and*

19           (3) *by adding at the end the following:*

20           “(B) *in the case of any portion of any regulation*  
 21           *that establishes requirements for general service in-*  
 22           *candescent lamps, intermediate base incandescent*  
 23           *lamps, or candelabra base lamps, was enacted or*  
 24           *adopted by the States of California or Nevada before*  
 25           *December 4, 2007, except that—*



1           “(i) the regulation adopted by the Cali-  
 2           fornia Energy Commission with an effective date  
 3           of January 1, 2008, shall only be effective until  
 4           the effective date of the Federal standard for the  
 5           applicable lamp category under subparagraphs  
 6           (A), (B), and (C) of section 325(i)(1);

7           “(ii) the States of California and Nevada  
 8           may, at any time, modify or adopt a State  
 9           standard for general service lamps to conform  
 10          with Federal standards with effective dates no  
 11          earlier than 12 months prior to the Federal effec-  
 12          tive dates prescribed under subparagraphs (A),  
 13          (B), and (C) of section 325(i)(1), at which time  
 14          any prior regulations adopted by the States of  
 15          California or Nevada shall no longer be effective;  
 16          and

17          “(iii) all other States may, at any time,  
 18          modify or adopt a State standard for general  
 19          service lamps to conform with Federal standards  
 20          and effective dates.”.

21          (e) *PROHIBITED ACTS*.—Section 332(a) of the Energy  
 22          Policy and Conservation Act (42 U.S.C. 6302(a)) is  
 23          amended—

24                 (1) in paragraph (4), by striking “or” at the  
 25          end;

1           (2) *in paragraph (5), by striking the period at*  
 2           *the end and inserting “; or”; and*

3           (3) *by adding at the end the following:*

4           “(6) *for any manufacturer, distributor, retailer,*  
 5           *or private labeler to distribute in commerce an adapt-*  
 6           *er that—*

7                   “(A) *is designed to allow an incandescent*  
 8           *lamp that does not have a medium screw base to*  
 9           *be installed into a fixture or lampholder with a*  
 10           *medium screw base socket; and*

11                   “(B) *is capable of being operated at a volt-*  
 12           *age range at least partially within 110 and 130*  
 13           *volts.”.*

14           (f) *ENFORCEMENT.—Section 334 of the Energy Policy*  
 15           *and Conservation Act (42 U.S.C. 6304) is amended by in-*  
 16           *serting after the second sentence the following: “Any such*  
 17           *action to restrain any person from distributing in com-*  
 18           *merce a general service incandescent lamp that does not*  
 19           *comply with the applicable standard established under sec-*  
 20           *tion 325(i) or an adapter prohibited under section*  
 21           *332(a)(6) may also be brought by the attorney general of*  
 22           *a State in the name of the State.”.*

23           (g) *RESEARCH AND DEVELOPMENT PROGRAM.—*

1           (1) *IN GENERAL.*—*The Secretary may carry out*  
 2           *a lighting technology research and development*  
 3           *program—*

4                   (A) *to support the research, development,*  
 5                   *demonstration, and commercial application of*  
 6                   *lamps and related technologies sold, offered for*  
 7                   *sale, or otherwise made available in the United*  
 8                   *States; and*

9                   (B) *to assist manufacturers of general serv-*  
 10                  *ice lamps in the manufacturing of general serv-*  
 11                  *ice lamps that, at a minimum, achieve the watt-*  
 12                  *age requirements imposed as a result of the*  
 13                  *amendments made by subsection (a).*

14           (2) *AUTHORIZATION OF APPROPRIATIONS.*—  
 15           *There are authorized to be appropriated to carry out*  
 16           *this subsection \$10,000,000 for each of fiscal years*  
 17           *2008 through 2013.*

18           (3) *TERMINATION OF AUTHORITY.*—*The program*  
 19           *under this subsection shall terminate on September*  
 20           *30, 2015.*

21           (h) *REPORTS TO CONGRESS.*—

22                   (1) *REPORT ON MERCURY USE AND RELEASE.*—  
 23           *Not later than 1 year after the date of enactment of*  
 24           *this Act, the Secretary , in cooperation with the Ad-*  
 25           *ministrator of the Environmental Protection Agency,*

1     *shall submit to Congress a report describing rec-*  
 2     *ommendations relating to the means by which the*  
 3     *Federal Government may reduce or prevent the re-*  
 4     *lease of mercury during the manufacture, transpor-*  
 5     *tation, storage, or disposal of light bulbs.*

6           (2) *REPORT ON RULEMAKING SCHEDULE.—Be-*  
 7     *ginning on July 1, 2013 and semiannually through*  
 8     *July 1, 2016, the Secretary shall submit to the Com-*  
 9     *mittee on Energy and Commerce of the House of Rep-*  
 10    *resentatives and the Committee on Energy and Nat-*  
 11    *ural Resources of the Senate a report on—*

12           (A) *whether the Secretary will meet the*  
 13     *deadlines for the rulemakings required under this*  
 14     *section;*

15           (B) *a description of any impediments to*  
 16     *meeting the deadlines; and*

17           (C) *a specific plan to remedy any failures,*  
 18     *including recommendations for additional legis-*  
 19     *lation or resources.*

20           (3) *NATIONAL ACADEMY REVIEW.—*

21           (A) *IN GENERAL.—Not later than December*  
 22     *31, 2009, the Secretary shall enter into an ar-*  
 23     *rangement with the National Academy of*  
 24     *Sciences to provide a report by December 31,*

1           2013, and an updated report by July 31, 2015.

2           *The report should include—*

3                     *(i) the status of advanced solid state*  
4                     *lighting research, development, demonstra-*  
5                     *tion and commercialization;*

6                     *(ii) the impact on the types of lighting*  
7                     *available to consumers of an energy con-*  
8                     *servation standard requiring a minimum of*  
9                     *45 lumens per watt for general service light-*  
10                    *ing effective in 2020; and*

11                    *(iii) the time frame for the commer-*  
12                    *cialization of lighting that could replace*  
13                    *current incandescent and halogen incandes-*  
14                    *cent lamp technology and any other new*  
15                    *technologies developed to meet the minimum*  
16                    *standards required under subsection (a) (3)*  
17                    *of this section.*

18                    *(B) REPORTS.—The reports shall be trans-*  
19                    *mitted to the Committee on Energy and Com-*  
20                    *merce of the House of Representatives and the*  
21                    *Committee on Energy and Natural Resources of*  
22                    *the Senate.*

1 **SEC. 322. INCANDESCENT REFLECTOR LAMP EFFICIENCY**

2 **STANDARDS.**

3 (a) *DEFINITIONS.*—Section 321 of the Energy Policy  
4 and Conservation Act (42 U.S.C. 6291) (as amended by sec-  
5 tion 316(c)(1)(D)) is amended—

6 (1) in paragraph (30)(C)(ii)—

7 (A) in the matter preceding subclause (I)—

8 (i) by striking “or similar bulb shapes  
9 (excluding ER or BR)” and inserting “ER,  
10 BR, BPAR, or similar bulb shapes”; and

11 (ii) by striking “2.75” and inserting  
12 “2.25”; and

13 (B) by striking “is either—” and all that  
14 follows through subclause (II) and inserting “has  
15 a rated wattage that is 40 watts or higher”; and

16 (2) by adding at the end the following:

17 “(54) **BPAR INCANDESCENT REFLECTOR**  
18 **LAMP.**—The term ‘BPAR incandescent reflector lamp’  
19 means a reflector lamp as shown in figure C78.21–  
20 278 on page 32 of ANSI C78.21–2003.

21 “(55) **BR INCANDESCENT REFLECTOR LAMP;**  
22 **BR30; BR40.**—

23 “(A) **BR INCANDESCENT REFLECTOR**  
24 **LAMP.**—The term ‘BR incandescent reflector  
25 lamp’ means a reflector lamp that has—

“(i) a bulged section below the major diameter of the bulb and above the approximate baseline of the bulb, as shown in figure 1 (RB) on page 7 of ANSI C79.1–1994, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

“(ii) a finished size and shape shown in ANSI C78.21–1989, including the referenced reflective characteristics in part 7 of ANSI C78.21–1989, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph).

“(B) *BR30*.—The term ‘BR30’ means a BR incandescent reflector lamp with a diameter of 30/8ths of an inch.

“(C) *BR40*.—The term ‘BR40’ means a BR incandescent reflector lamp with a diameter of 40/8ths of an inch.

“(56) *ER INCANDESCENT REFLECTOR LAMP; ER30; ER40*.—

“(A) *ER INCANDESCENT REFLECTOR LAMP.*—The term ‘*ER incandescent reflector lamp*’ means a reflector lamp that has—

“(i) an elliptical section below the major diameter of the bulb and above the approximate baseline of the bulb, as shown in figure 1 (*RE*) on page 7 of ANSI C79.1–1994, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

“(ii) a finished size and shape shown in ANSI C78.21–1989, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph).

“(B) *ER<sub>30</sub>.*—The term ‘*ER<sub>30</sub>*’ means an *ER incandescent reflector lamp* with a diameter of 30/8ths of an inch.

“(C) *ER<sub>40</sub>.*—The term ‘*ER<sub>40</sub>*’ means an *ER incandescent reflector lamp* with a diameter of 40/8ths of an inch.

“(57) *R<sub>20</sub> INCANDESCENT REFLECTOR LAMP.*—The term ‘*R<sub>20</sub> incandescent reflector lamp*’ means a reflector lamp that has a face diameter of approxi-



1        *mately 2.5 inches, as shown in figure 1(R) on page*  
 2        *7 of ANSI C79.1–1994.”.*

3        *(b) STANDARDS FOR FLUORESCENT LAMPS AND IN-*  
 4        *CANDESCENT REFLECTOR LAMPS.—Section 325(i) of the*  
 5        *Energy Policy and Conservation Act (42 U.S.C. 6995(i))*  
 6        *is amended by striking paragraph (1) and inserting the fol-*  
 7        *lowing:*

8                *“(1) STANDARDS.—*

9                        *“(A) DEFINITION OF EFFECTIVE DATE.—In*  
 10                      *this paragraph (other than subparagraph (D)),*  
 11                      *the term ‘effective date’ means, with respect to*  
 12                      *each type of lamp specified in a table contained*  
 13                      *in subparagraph (B), the last day of the period*  
 14                      *of months corresponding to that type of lamp (as*  
 15                      *specified in the table) that follows October 24,*  
 16                      *1992.*

17                      *“(B) MINIMUM STANDARDS.—Each of the*  
 18                      *following general service fluorescent lamps and*  
 19                      *incandescent reflector lamps manufactured after*  
 20                      *the effective date specified in the tables contained*  
 21                      *in this paragraph shall meet or exceed the fol-*  
 22                      *lowing lamp efficacy and CRI standards:*

“FLUORESCENT LAMPS

<i>Lamp Type</i>	<i>Nominal Lamp Wattage</i>	<i>Minimum CRI</i>	<i>Minimum Average Lamp Efficacy (LPW)</i>	<i>Effective Date (Pe- riod of Months)</i>
<i>4-foot medium bi-pin .....</i>	<i>&gt;35 W</i>	<i>69</i>	<i>75.0</i>	<i>36</i>
	<i>≤35 W</i>	<i>45</i>	<i>75.0</i>	<i>36</i>
<i>2-foot U-shaped .....</i>	<i>&gt;35 W</i>	<i>69</i>	<i>68.0</i>	<i>36</i>

*“FLUORESCENT LAMPS—Continued*

<i>Lamp Type</i>	<i>Nominal Lamp Wattage</i>	<i>Minimum CRI</i>	<i>Minimum Average Lamp Efficacy (LPW)</i>	<i>Effective Date (Pe- riod of Months)</i>
<i>8-foot slimline .....</i>	<i>≤35 W</i>	<i>45</i>	<i>64.0</i>	<i>36</i>
	<i>65 W</i>	<i>69</i>	<i>80.0</i>	<i>18</i>
	<i>≤65 W</i>	<i>45</i>	<i>80.0</i>	<i>18</i>
<i>8-foot high output .....</i>	<i>&gt;100 W</i>	<i>69</i>	<i>80.0</i>	<i>18</i>
	<i>≤100 W</i>	<i>45</i>	<i>80.0</i>	<i>18</i>

*“INCANDESCENT REFLECTOR LAMPS*

<i>Nominal Lamp Wattage</i>	<i>Minimum Average Lamp Efficacy (LPW)</i>	<i>Effective Date (Pe- riod of Months)</i>
<i>40–50 .....</i>	<i>10.5</i>	<i>36</i>
<i>51–66 .....</i>	<i>11.0</i>	<i>36</i>
<i>67–85 .....</i>	<i>12.5</i>	<i>36</i>
<i>86–115 .....</i>	<i>14.0</i>	<i>36</i>
<i>116–155 .....</i>	<i>14.5</i>	<i>36</i>
<i>156–205 .....</i>	<i>15.0</i>	<i>36</i>

1                   “(C) *EXEMPTIONS.—The standards speci-*  
2                   *fied in subparagraph (B) shall not apply to the*  
3                   *following types of incandescent reflector lamps:*

4                   “(i) *Lamps rated at 50 watts or less*  
5                   *that are ER30, BR30, BR40, or ER40*  
6                   *lamps.*

7                   “(ii) *Lamps rated at 65 watts that are*  
8                   *BR30, BR40, or ER40 lamps.*

9                   “(iii) *R20 incandescent reflector lamps*  
10                  *rated 45 watts or less.*

11                  “(D) *EFFECTIVE DATES.—*

12                  “(i) *ER, BR, AND BPAR LAMPS.—The*  
13                  *standards specified in subparagraph (B)*  
14                  *shall apply with respect to ER incandescent*  
15                  *reflector lamps, BR incandescent reflector*

lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008.

“(ii) LAMPS BETWEEN 2.25–2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (B) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after the later of January 1, 2008, or the date that is 180 days after the date of enactment of the Energy Independence and Security Act of 2007.”.

**SEC. 323. PUBLIC BUILDING ENERGY EFFICIENT AND RENEWABLE ENERGY SYSTEMS.**

(a) ESTIMATE OF ENERGY PERFORMANCE IN PROSPECTUS.—Section 3307(b) of title 40, United States Code, is amended—

(1) by striking “and” at the end of paragraph (5);

(2) by striking the period at the end of paragraph (6) and inserting “; and”; and

(3) by inserting after paragraph (6) the following:

1           “(7) *with respect to any prospectus for the con-*  
 2           *struction, alteration, or acquisition of any building or*  
 3           *space to be leased, an estimate of the future energy*  
 4           *performance of the building or space and a specific*  
 5           *description of the use of energy efficient and renew-*  
 6           *able energy systems, including photovoltaic systems,*  
 7           *in carrying out the project.”.*

8           (b) *MINIMUM PERFORMANCE REQUIREMENTS FOR*  
 9           *LEASED SPACE.*—Section 3307 of such of title is  
 10          *amended—*

11           (1) *by redesignating subsections (f) and (g) as*  
 12           *subsections (g) and (h), respectively; and*

13           (2) *by inserting after subsection (e) the following:*

14           “(f) *MINIMUM PERFORMANCE REQUIREMENTS FOR*  
 15           *LEASED SPACE.*—*With respect to space to be leased, the Ad-*  
 16           *ministrators shall include, to the maximum extent prac-*  
 17           *ticable, minimum performance requirements requiring en-*  
 18           *ergy efficiency and the use of renewable energy.”.*

19           (c) *USE OF ENERGY EFFICIENT LIGHTING FIXTURES*  
 20           *AND BULBS.*—

21           (1) *IN GENERAL.*—Chapter 33 of such title is  
 22           *amended—*

23           (A) *by redesignating sections 3313, 3314,*  
 24           *and 3315 as sections 3314, 3315, and 3316, re-*  
 25           *spectively; and*

1                   (B) by inserting after section 3312 the fol-  
 2                   lowing:

3   **“§ 3313. Use of energy efficient lighting fixtures and**  
 4                   **bulbs**

5           “(a) CONSTRUCTION, ALTERATION, AND ACQUISITION  
 6 OF PUBLIC BUILDINGS.—Each public building constructed,  
 7 altered, or acquired by the Administrator of General Serv-  
 8 ices shall be equipped, to the maximum extent feasible as  
 9 determined by the Administrator, with lighting fixtures and  
 10 bulbs that are energy efficient.

11          “(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each  
 12 lighting fixture or bulb that is replaced by the Adminis-  
 13 trator in the normal course of maintenance of public build-  
 14 ings shall be replaced, to the maximum extent feasible, with  
 15 a lighting fixture or bulb that is energy efficient.

16          “(c) CONSIDERATIONS.—In making a determination  
 17 under this section concerning the feasibility of installing  
 18 a lighting fixture or bulb that is energy efficient, the Ad-  
 19 ministrator shall consider—

20               “(1) the life-cycle cost effectiveness of the fixture  
 21 or bulb;

22               “(2) the compatibility of the fixture or bulb with  
 23 existing equipment;

24               “(3) whether use of the fixture or bulb could re-  
 25 sult in interference with productivity;

1           “(4) *the aesthetics relating to use of the fixture*  
2           *or bulb; and*

3           “(5) *such other factors as the Administrator de-*  
4           *termines appropriate.*

5           “(d) *ENERGY STAR.—A lighting fixture or bulb shall*  
6           *be treated as being energy efficient for purposes of this sec-*  
7           *tion if—*

8           “(1) *the fixture or bulb is certified under the En-*  
9           *ergy Star program established by section 324A of the*  
10          *Energy Policy and Conservation Act (42 U.S.C.*  
11          *6294a);*

12          “(2) *in the case of all light-emitting diode*  
13          *(LED) luminaires, lamps, and systems whose efficacy*  
14          *(lumens per watt) and Color Rendering Index (CRI)*  
15          *meet the Department of Energy requirements for min-*  
16          *imum luminaire efficacy and CRI for the Energy*  
17          *Star certification, as verified by an independent*  
18          *third-party testing laboratory that the Administrator*  
19          *and the Secretary of Energy determine conducts its*  
20          *tests according to the procedures and recommenda-*  
21          *tions of the Illuminating Engineering Society of*  
22          *North America, even if the luminaires, lamps, and*  
23          *systems have not received such certification; or*

1           “(3) *the Administrator and the Secretary of En-*  
 2           *ergy have otherwise determined that the fixture or*  
 3           *bulb is energy efficient.*

4           “(e) *ADDITIONAL ENERGY EFFICIENT LIGHTING DES-*  
 5           *IGNATIONS.—The Administrator of the Environmental Pro-*  
 6           *tection Agency and the Secretary of Energy shall give pri-*  
 7           *ority to establishing Energy Star performance criteria or*  
 8           *Federal Energy Management Program designations for ad-*  
 9           *ditional lighting product categories that are appropriate for*  
 10          *use in public buildings.*

11          “(f) *GUIDELINES.—The Administrator shall develop*  
 12          *guidelines for the use of energy efficient lighting tech-*  
 13          *nologies that contain mercury in child care centers in pub-*  
 14          *lic buildings.*

15          “(g) *APPLICABILITY OF BUY AMERICAN ACT.—Acqui-*  
 16          *sitions carried out pursuant to this section shall be subject*  
 17          *to the requirements of the Buy American Act (41 U.S.C.*  
 18          *10c et seq.).*

19          “(h) *EFFECTIVE DATE.—The requirements of sub-*  
 20          *sections (a) and (b) shall take effect one year after the date*  
 21          *of enactment of this subsection.”.*

22                 (2) *CLERICAL AMENDMENT.—The analysis for*  
 23                 *such chapter is amended by striking the items relat-*  
 24                 *ing to sections 3313, 3314, and 3315 and inserting*  
 25                 *the following:*

“3313. *Use of energy efficient lighting fixtures and bulbs.*

“3314. *Delegation.*

“3315. *Report to Congress.*

“3316. *Certain authority not affected.*”.

1       (d) *EVALUATION FACTOR.*—Section 3310 of such title  
2 *is amended—*

3           (1) *by redesignating paragraphs (3), (4), and (5)*  
4 *as paragraphs (4), (5), and (6), respectively; and*

5           (2) *by inserting after paragraph (2) the fol-*  
6 *lowing:*

7           “(3) *shall include in the solicitation for any*  
8 *lease requiring a prospectus under section 3307 an*  
9 *evaluation factor considering the extent to which the*  
10 *offeror will promote energy efficiency and the use of*  
11 *renewable energy;*”.

12 **SEC. 324. METAL HALIDE LAMP FIXTURES.**

13       (a) *DEFINITIONS.*—Section 321 of the Energy Policy  
14 *and Conservation Act (42 U.S.C. 6291) (as amended by sec-*  
15 *tion 322(a)(2)) is amended by adding at the end the fol-*  
16 *lowing:*

17           “(58) *BALLAST.*—The term ‘ballast’ means a de-  
18 *vice used with an electric discharge lamp to obtain*  
19 *necessary circuit conditions (voltage, current, and*  
20 *waveform) for starting and operating.*

21           “(59) *BALLAST EFFICIENCY.*—

22           “(A) *IN GENERAL.*—The term ‘ballast effi-  
23 *ciency’ means, in the case of a high intensity*  
24 *discharge fixture, the efficiency of a lamp and*



ballast combination, expressed as a percentage,  
and calculated in accordance with the following  
formula:  $\text{Efficiency} = P_{\text{out}}/P_{\text{in}}$ .

“(B) EFFICIENCY FORMULA.—For the purpose of subparagraph (A)—

“(i)  $P_{\text{out}}$  shall equal the measured operating lamp wattage;

“(ii)  $P_{\text{in}}$  shall equal the measured operating input wattage;

“(iii) the lamp, and the capacitor when the capacitor is provided, shall constitute a nominal system in accordance with the ANSI Standard C78.43–2004;

“(iv) for ballasts with a frequency of 60 Hz,  $P_{\text{in}}$  and  $P_{\text{out}}$  shall be measured after lamps have been stabilized according to section 4.4 of ANSI Standard C82.6–2005 using a wattmeter with accuracy specified in section 4.5 of ANSI Standard C82.6–2005; and

“(v) for ballasts with a frequency greater than 60 Hz,  $P_{\text{in}}$  and  $P_{\text{out}}$  shall have a basic accuracy of  $\pm 0.5$  percent at the higher of—

1                   “(I) 3 times the output operating  
2                   frequency of the ballast; or

3                   “(II) 2 kHz for ballast with a fre-  
4                   quency greater than 60 Hz.

5                   “(C) MODIFICATION.—The Secretary may,  
6                   by rule, modify the definition of ‘ballast effi-  
7                   ciency’ if the Secretary determines that the  
8                   modification is necessary or appropriate to  
9                   carry out the purposes of this Act.

10                  “(60) ELECTRONIC BALLAST.—The term ‘elec-  
11                  tronic ballast’ means a device that uses semiconduc-  
12                  tors as the primary means to control lamp starting  
13                  and operation.

14                  “(61) GENERAL LIGHTING APPLICATION.—The  
15                  term ‘general lighting application’ means lighting  
16                  that provides an interior or exterior area with overall  
17                  illumination.

18                  “(62) METAL HALIDE BALLAST.—The term  
19                  ‘metal halide ballast’ means a ballast used to start  
20                  and operate metal halide lamps.

21                  “(63) METAL HALIDE LAMP.—The term ‘metal  
22                  halide lamp’ means a high intensity discharge lamp  
23                  in which the major portion of the light is produced  
24                  by radiation of metal halides and their products of

1        *dissociation, possibly in combination with metallic*  
 2        *vapors.*

3                “(64) *METAL HALIDE LAMP FIXTURE.*—*The term*  
 4        *‘metal halide lamp fixture’ means a light fixture for*  
 5        *general lighting application designed to be operated*  
 6        *with a metal halide lamp and a ballast for a metal*  
 7        *halide lamp.*

8                “(65) *PROBE-START METAL HALIDE BALLAST.*—  
 9        *The term ‘probe-start metal halide ballast’ means a*  
 10       *ballast that—*

11                “(A) *starts a probe-start metal halide lamp*  
 12        *that contains a third starting electrode (probe)*  
 13        *in the arc tube; and*

14                “(B) *does not generally contain an igniter*  
 15        *but instead starts lamps with high ballast open*  
 16        *circuit voltage.*

17                “(66) *PULSE-START METAL HALIDE BALLAST.*—

18                “(A) *IN GENERAL.*—*The term ‘pulse-start*  
 19        *metal halide ballast’ means an electronic or elec-*  
 20        *tromagnetic ballast that starts a pulse-start*  
 21        *metal halide lamp with high voltage pulses.*

22                “(B) *STARTING PROCESS.*—*For the purpose*  
 23        *of subparagraph (A)—*

1                   “(i) lamps shall be started by first pro-  
 2                   viding a high voltage pulse for ionization of  
 3                   the gas to produce a glow discharge; and

4                   “(ii) to complete the starting process,  
 5                   power shall be provided by the ballast to  
 6                   sustain the discharge through the glow-to-  
 7                   arc transition.”.

8           (b) *COVERAGE*.—Section 322(a) of the Energy Policy  
 9 and Conservation Act (42 U.S.C. 6292(a)) is amended—  
 10           (1) by redesignating paragraph (19) as para-  
 11           graph (20); and

12           (2) by inserting after paragraph (18) the fol-  
 13           lowing:

14           “(19) Metal halide lamp fixtures.”.

15           (c) *TEST PROCEDURES*.—Section 323(b) of the Energy  
 16 Policy and Conservation Act (42 U.S.C. 6293(b)) (as  
 17 amended by section 301(b)) is amended by adding at the  
 18 end the following:

19           “(18) *METAL HALIDE LAMP BALLASTS*.—Test  
 20           procedures for metal halide lamp ballasts shall be  
 21           based on ANSI Standard C82.6–2005, entitled ‘Bal-  
 22           lasts for High Intensity Discharge Lamps—Method of  
 23           Measurement’.”.

1       (d) *LABELING*.—Section 324(a)(2) of the Energy Pol-  
 2    icy and Conservation Act (42 U.S.C. 6294(a)(2)) is  
 3    amended—

4           (1) by redesignating subparagraphs (C) through  
 5       (G) as subparagraphs (D) through (H), respectively;  
 6       and

7           (2) by inserting after subparagraph (B) the fol-  
 8       lowing:

9           “(C) *METAL HALIDE LAMP FIXTURES*.—

10           “(i) *IN GENERAL*.—The Commission  
 11       shall issue labeling rules under this section  
 12       applicable to the covered product specified  
 13       in section 322(a)(19) and to which stand-  
 14       ards are applicable under section 325.

15           “(ii) *LABELING*.—The rules shall pro-  
 16       vide that the labeling of any metal halide  
 17       lamp fixture manufactured on or after the  
 18       later of January 1, 2009, or the date that  
 19       is 270 days after the date of enactment of  
 20       this subparagraph, shall indicate conspicu-  
 21       ously, in a manner prescribed by the Com-  
 22       mission under subsection (b) by July 1,  
 23       2008, a capital letter ‘E’ printed within a  
 24       circle on the packaging of the fixture, and  
 25       on the ballast contained in the fixture.”.

1       (e) *STANDARDS.—Section 325 of the Energy Policy*  
 2 *and Conservation Act (42 U.S.C. 6295) (as amended by sec-*  
 3 *tion 310) is amended—*

4           (1) *by redesignating subsection (hh) as sub-*  
 5 *section (ii);*

6           (2) *by inserting after subsection (gg) the fol-*  
 7 *lowing:*

8       “(hh) *METAL HALIDE LAMP FIXTURES.—*

9           “(1) *STANDARDS.—*

10           “(A) *IN GENERAL.—Subject to subpara-*  
 11 *graphs (B) and (C), metal halide lamp fixtures*  
 12 *designed to be operated with lamps rated greater*  
 13 *than or equal to 150 watts but less than or equal*  
 14 *to 500 watts shall contain—*

15           “(i) *a pulse-start metal halide ballast*  
 16 *with a minimum ballast efficiency of 88*  
 17 *percent;*

18           “(ii) *a magnetic probe-start ballast*  
 19 *with a minimum ballast efficiency of 94*  
 20 *percent; or*

21           “(iii) *a nonpulse-start electronic bal-*  
 22 *last with—*

23           “(I) *a minimum ballast efficiency*  
 24 *of 92 percent for wattages greater than*  
 25 *250 watts; and*

1                   “(II) a minimum ballast effi-  
2                   ciency of 90 percent for wattages less  
3                   than or equal to 250 watts.

4                   “(B) *EXCLUSIONS.*—The standards estab-  
5                   lished under subparagraph (A) shall not apply  
6                   to—

7                   “(i) fixtures with regulated lag bal-  
8                   lasts;

9                   “(ii) fixtures that use electronic bal-  
10                  lasts that operate at 480 volts; or

11                  “(iii) fixtures that—

12                   “(I) are rated only for 150 watt  
13                  lamps;

14                   “(II) are rated for use in wet lo-  
15                  cations, as specified by the National  
16                  Electrical Code 2002, section 410.4(A);  
17                  and

18                   “(III) contain a ballast that is  
19                  rated to operate at ambient air tem-  
20                  peratures above 50°C, as specified by  
21                  UL 1029–2001.

22                  “(C) *APPLICATION.*—The standards estab-  
23                  lished under subparagraph (A) shall apply to  
24                  metal halide lamp fixtures manufactured on or  
25                  after the later of—

1 “(i) *January 1, 2009; or*

2 “(ii) *the date that is 270 days after the*  
3 *date of enactment of this subsection.*

4 “(2) *FINAL RULE BY JANUARY 1, 2012.—*

5 “(A) *IN GENERAL.—Not later than January*  
6 *1, 2012, the Secretary shall publish a final rule*  
7 *to determine whether the standards established*  
8 *under paragraph (1) should be amended.*

9 “(B) *ADMINISTRATION.—The final rule*  
10 *shall—*

11 “(i) *contain any amended standard;*  
12 *and*

13 “(ii) *apply to products manufactured*  
14 *on or after January 1, 2015.*

15 “(3) *FINAL RULE BY JANUARY 1, 2019.—*

16 “(A) *IN GENERAL.—Not later than January*  
17 *1, 2019, the Secretary shall publish a final rule*  
18 *to determine whether the standards then in effect*  
19 *should be amended.*

20 “(B) *ADMINISTRATION.—The final rule*  
21 *shall—*

22 “(i) *contain any amended standards;*  
23 *and*

24 “(ii) *apply to products manufactured*  
25 *after January 1, 2022.*



1           “(4) *DESIGN AND PERFORMANCE REQUIRE-*  
 2           *MENTS.—Notwithstanding any other provision of law,*  
 3           *any standard established pursuant to this subsection*  
 4           *may contain both design and performance require-*  
 5           *ments.”; and*

6           (3) *in paragraph (2) of subsection (ii) (as redes-*  
 7           *ignated by paragraph (2)), by striking “(gg)” each*  
 8           *place it appears and inserting “(hh)”.*

9           (f) *EFFECT ON OTHER LAW.—Section 327(c) of the*  
 10          *Energy Policy and Conservation Act (42 U.S.C. 6297(c))*  
 11          *is amended—*

12           (1) *in paragraph (8)(B), by striking the period*  
 13           *at the end and inserting “; and”; and*

14           (2) *by adding at the end the following:*

15           “(9) *is a regulation concerning metal halide*  
 16           *lamp fixtures adopted by the California Energy Com-*  
 17           *mission on or before January 1, 2011, except that—*

18           “(A) *if the Secretary fails to issue a final*  
 19           *rule within 180 days after the deadlines for*  
 20           *rulemakings in section 325(hh), notwithstanding*  
 21           *any other provision of this section, preemption*  
 22           *shall not apply to a regulation concerning metal*  
 23           *halide lamp fixtures adopted by the California*  
 24           *Energy Commission—*

1                   “(i) on or before July 1, 2015, if the  
2                   Secretary fails to meet the deadline speci-  
3                   fied in section 325(hh)(2); or

4                   “(ii) on or before July 1, 2022, if the  
5                   Secretary fails to meet the deadline speci-  
6                   fied in section 325(hh)(3).”.

7   **SEC. 325. ENERGY EFFICIENCY LABELING FOR CONSUMER**  
8                   **ELECTRONIC PRODUCTS.**

9           (a) *IN GENERAL*.—Section 324(a) of the Energy Pol-  
10   icy and Conservation Act (42 U.S.C. 6294(a)) (as amended  
11   by section 324(d)) is amended—

12                   (1) in paragraph (2), by adding at the end the  
13                   following:

14                   “(I) *LABELING REQUIREMENTS*.—

15                   “(i) *IN GENERAL*.—Subject to clauses  
16                   (ii) through (iv), not later than 18 months  
17                   after the date of issuance of applicable De-  
18                   partment of Energy testing procedures, the  
19                   Commission, in consultation with the Sec-  
20                   retary and the Administrator of the Envi-  
21                   ronmental Protection Agency (acting  
22                   through the Energy Star program), shall,  
23                   by regulation, prescribe labeling or other  
24                   disclosure requirements for the energy use  
25                   of—

1 “(I) televisions;

2 “(II) personal computers;

3 “(III) cable or satellite set-top  
4 boxes;

5 “(IV) stand-alone digital video re-  
6 corder boxes; and

7 “(V) personal computer monitors.

8 “(ii) *ALTERNATE TESTING PROCEDURE*.—In the absence of applicable test-  
9 ing procedures described in clause (i) for  
10 products described in subclauses (I) through  
11 (V) of that clause, the Commission may, by  
12 regulation, prescribe labeling or other dis-  
13 closure requirements for a consumer product  
14 category described in clause (i) if the  
15 Commission—  
16

17 “(I) identifies adequate non-De-  
18 partment of Energy testing procedures  
19 for those products; and

20 “(II) determines that labeling of,  
21 or other disclosures relating to, those  
22 products is likely to assist consumers  
23 in making purchasing decisions.

24 “(iii) *DEADLINE AND REQUIREMENTS*  
25 *FOR LABELING*.—

1                   “(I) *DEADLINE.*—Not later than  
 2                   18 months after the date of promulga-  
 3                   tion of any requirements under clause  
 4                   (i) or (ii), the Commission shall re-  
 5                   quire labeling of, or other disclosure re-  
 6                   quirements for, electronic products de-  
 7                   scribed in clause (i).

8                   “(II) *REQUIREMENTS.*—The re-  
 9                   quirements prescribed under clause (i)  
 10                  or (ii) may include specific require-  
 11                  ments for each electronic product to be  
 12                  labeled with respect to the placement,  
 13                  size, and content of Energy Guide la-  
 14                  bels.

15                  “(iv) *DETERMINATION OF FEASI-*  
 16                  *BILITY.*—Clause (i) or (ii) shall not apply  
 17                  in any case in which the Commission deter-  
 18                  mines that labeling in accordance with this  
 19                  subsection—

20                         “(I) is not technologically or eco-  
 21                         nomically feasible; or

22                         “(II) is not likely to assist con-  
 23                         sumers in making purchasing deci-  
 24                         sions.”; and

25                         (2) by adding at the end the following:

1           “(6) *AUTHORITY TO INCLUDE ADDITIONAL PROD-*  
 2           *UCT CATEGORIES.*—*The Commission may, by regula-*  
 3           *tion, require labeling or other disclosures in accord-*  
 4           *ance with this subsection for any consumer product*  
 5           *not specified in this subsection or section 322 if the*  
 6           *Commission determines that labeling for the product*  
 7           *is likely to assist consumers in making purchasing*  
 8           *decisions.”.*

9           (b) *CONTENT OF LABEL.*—*Section 324(c) of the En-*  
 10          *ergy Policy and Conservation Act (42 U.S.C. 6924(c)) is*  
 11          *amended by adding at the end the following:*

12           “(9) *DISCRETIONARY APPLICATION.*—*The Com-*  
 13          *mission may apply paragraphs (1), (2), (3), (5), and*  
 14          *(6) of this subsection to the labeling of any product*  
 15          *covered by paragraph (2)(I) or (6) of subsection (a).”.*

16          ***TITLE IV—ENERGY SAVINGS IN***  
 17          ***BUILDINGS AND INDUSTRY***

18          ***SEC. 401. DEFINITIONS.***

19          *In this title:*

20           (1) *ADMINISTRATOR.*—*The term “Adminis-*  
 21          *trator” means the Administrator of General Services.*

22           (2) *ADVISORY COMMITTEE.*—*The term “Advisory*  
 23          *Committee” means the Green Building Advisory*  
 24          *Committee established under section 484.*

1           (3) *COMMERCIAL DIRECTOR*.—The term “Com-  
 2           mercial Director” means the individual appointed to  
 3           the position established under section 421.

4           (4) *CONSORTIUM*.—The term “Consortium”  
 5           means the High-Performance Green Building Part-  
 6           nership Consortium created in response to section  
 7           436(c)(1) to represent the private sector in a public-  
 8           private partnership to promote high-performance  
 9           green buildings and zero-net-energy commercial build-  
 10          ings.

11          (5) *COST-EFFECTIVE LIGHTING TECHNOLOGY*.—

12           (A) *IN GENERAL*.—The term “cost-effective  
 13           lighting technology” means a lighting technology  
 14           that—

15                   (i) will result in substantial oper-  
 16                   ational cost savings by ensuring an in-  
 17                   stalled consumption of not more than 1  
 18                   watt per square foot; or

19                   (ii) is contained in a list under—

20                           (I) section 553 of Public Law 95–  
 21                           619 (42 U.S.C. 8259b);

22                           (II) Federal acquisition regula-  
 23                           tion 23–203; and

24                           (III) is at least as energy-con-  
 25                           serving as required by other provisions

1                   of this Act, including the requirements  
 2                   of this title and title III which shall be  
 3                   applicable to the extent that they  
 4                   would achieve greater energy savings  
 5                   than provided under clause (i) or this  
 6                   clause.

7                   (B) *INCLUSIONS.*—The term “cost-effective  
 8                   lighting technology” includes—

- 9                   (i) lamps;
- 10                  (ii) ballasts;
- 11                  (iii) luminaires;
- 12                  (iv) lighting controls;
- 13                  (v) daylighting; and
- 14                  (vi) early use of other highly cost-effec-
- 15                  tive lighting technologies.

16                  (6) *COST-EFFECTIVE TECHNOLOGIES AND PRAC-*  
 17                  *TICES.*—The term “cost-effective technologies and  
 18                  practices” means a technology or practice that—

19                   (A) will result in substantial operational  
 20                   cost savings by reducing electricity or fossil fuel  
 21                   consumption, water, or other utility costs, in-  
 22                   cluding use of geothermal heat pumps;

23                   (B) complies with the provisions of section  
 24                   553 of Public Law 95–619 (42 U.S.C. 8259b)  
 25                   and Federal acquisition regulation 23–203; and

1           (C) is at least as energy and water con-  
 2           serving as required under this title, including  
 3           sections 431 through 435, and title V, including  
 4           section 511 through 525, which shall be applica-  
 5           ble to the extent that they are more stringent or  
 6           require greater energy or water savings than re-  
 7           quired by this section.

8           (7) *FEDERAL DIRECTOR*.—The term “Federal  
 9           Director” means the individual appointed to the posi-  
 10          tion established under section 436(a).

11          (8) *FEDERAL FACILITY*.—The term “Federal fa-  
 12          cility” means any building that is constructed, ren-  
 13          ovated, leased, or purchased in part or in whole for  
 14          use by the Federal Government.

15          (9) *OPERATIONAL COST SAVINGS*.—

16               (A) *IN GENERAL*.—The term “operational  
 17               cost savings” means a reduction in end-use oper-  
 18               ational costs through the application of cost-effec-  
 19               tive technologies and practices or geothermal  
 20               heat pumps, including a reduction in electricity  
 21               consumption relative to consumption by the  
 22               same customer or at the same facility in a given  
 23               year, as defined in guidelines promulgated by  
 24               the Administrator pursuant to section 329(b) of  
 25               the Clean Air Act, that achieves cost savings suf-



1        *ficient to pay the incremental additional costs of*  
 2        *using cost-effective technologies and practices in-*  
 3        *cluding geothermal heat pumps by not later than*  
 4        *the later of the date established under sections*  
 5        *431 through 434, or—*

6                *(i) for cost-effective technologies and*  
 7                *practices, the date that is 5 years after the*  
 8                *date of installation; and*

9                *(ii) for geothermal heat pumps, as soon*  
 10                *as practical after the date of installation of*  
 11                *the applicable geothermal heat pump.*

12                *(B) INCLUSIONS.—The term “operational*  
 13                *cost savings” includes savings achieved at a fa-*  
 14                *cility as a result of—*

15                *(i) the installation or use of cost-effec-*  
 16                *tive technologies and practices; or*

17                *(ii) the planting of vegetation that*  
 18                *shades the facility and reduces the heating,*  
 19                *cooling, or lighting needs of the facility.*

20                *(C) EXCLUSION.—The term “operational*  
 21                *cost savings” does not include savings from*  
 22                *measures that would likely be adopted in the ab-*  
 23                *sence of cost-effective technology and practices*  
 24                *programs, as determined by the Administrator.*

1           (10) *GEOHERMAL HEAT PUMP.*—*The term “geo-*  
2           *thermal heat pump” means any heating or air condi-*  
3           *tioning technology that—*

4                   (A) *uses the ground or ground water as a*  
5                   *thermal energy source to heat, or as a thermal*  
6                   *energy sink to cool, a building; and*

7                   (B) *meets the requirements of the Energy*  
8                   *Star program of the Environmental Protection*  
9                   *Agency applicable to geothermal heat pumps on*  
10                  *the date of purchase of the technology.*

11          (11) *GSA FACILITY.*—

12                  (A) *IN GENERAL.*—*The term “GSA facility”*  
13                  *means any building, structure, or facility, in*  
14                  *whole or in part (including the associated sup-*  
15                  *port systems of the building, structure, or facil-*  
16                  *ity) that—*

17                          (i) *is constructed (including facilities*  
18                          *constructed for lease), renovated, or pur-*  
19                          *chased, in whole or in part, by the Admin-*  
20                          *istrator for use by the Federal Government;*  
21                          *or*

22                          (ii) *is leased, in whole or in part, by*  
23                          *the Administrator for use by the Federal*  
24                          *Government—*

1                   (I) *except as provided in sub-*  
 2                   *clause (II), for a term of not less than*  
 3                   *5 years; or*

4                   (II) *for a term of less than 5*  
 5                   *years, if the Administrator determines*  
 6                   *that use of cost-effective technologies*  
 7                   *and practices would result in the pay-*  
 8                   *back of expenses.*

9                   (B) *INCLUSION.—The term “GSA facility”*  
 10                  *includes any group of buildings, structures, or*  
 11                  *facilities described in subparagraph (A) (includ-*  
 12                  *ing the associated energy-consuming support sys-*  
 13                  *tems of the buildings, structures, and facilities).*

14                  (C) *EXEMPTION.—The Administrator may*  
 15                  *exempt from the definition of “GSA facility”*  
 16                  *under this paragraph a building, structure, or*  
 17                  *facility that meets the requirements of section*  
 18                  *543(c) of Public Law 95–619 (42 U.S.C.*  
 19                  *8253(c)).*

20                  (12) *HIGH-PERFORMANCE BUILDING.—The term*  
 21                  *“high performance building” means a building that*  
 22                  *integrates and optimizes on a life cycle basis all*  
 23                  *major high performance attributes, including energy*  
 24                  *conservation, environment, safety, security, dura-*

1        *bility, accessibility, cost-benefit, productivity, sustain-*  
2        *ability, functionality, and operational considerations.*

3            (13) *HIGH-PERFORMANCE GREEN BUILDING.*—

4        *The term “high-performance green building” means a*  
5        *high-performance building that, during its life-cycle,*  
6        *as compared with similar buildings (as measured by*  
7        *Commercial Buildings Energy Consumption Survey*  
8        *or Residential Energy Consumption Survey data*  
9        *from the Energy Information Agency)—*

10            (A) *reduces energy, water, and material re-*  
11            *source use;*

12            (B) *improves indoor environmental quality,*  
13            *including reducing indoor pollution, improving*  
14            *thermal comfort, and improving lighting and*  
15            *acoustic environments that affect occupant health*  
16            *and productivity;*

17            (C) *reduces negative impacts on the envi-*  
18            *ronment throughout the life-cycle of the building,*  
19            *including air and water pollution and waste*  
20            *generation;*

21            (D) *increases the use of environmentally*  
22            *preferable products, including biobased, recycled*  
23            *content, and nontoxic products with lower life-*  
24            *cycle impacts;*

1                   (E) increases reuse and recycling opportu-  
2                   nities;

3                   (F) integrates systems in the building;

4                   (G) reduces the environmental and energy  
5                   impacts of transportation through building loca-  
6                   tion and site design that support a full range of  
7                   transportation choices for users of the building;  
8                   and

9                   (H) considers indoor and outdoor effects of  
10                  the building on human health and the environ-  
11                  ment, including—

12                   (i) improvements in worker produc-  
13                   tivity;

14                   (ii) the life-cycle impacts of building  
15                   materials and operations; and

16                   (iii) other factors that the Federal Di-  
17                   rector or the Commercial Director consider  
18                   to be appropriate.

19                  (14) *LIFE-CYCLE*.—The term “life-cycle”, with  
20                  respect to a high-performance green building, means  
21                  all stages of the useful life of the building (including  
22                  components, equipment, systems, and controls of the  
23                  building) beginning at conception of a high-perform-  
24                  ance green building project and continuing through  
25                  site selection, design, construction, landscaping, com-

1     *missioning, operation, maintenance, renovation,*  
 2     *deconstruction or demolition, removal, and recycling*  
 3     *of the high-performance green building.*

4           (15) *LIFE-CYCLE ASSESSMENT.*—*The term “life-*  
 5     *cycle assessment” means a comprehensive system ap-*  
 6     *proach for measuring the environmental performance*  
 7     *of a product or service over the life of the product or*  
 8     *service, beginning at raw materials acquisition and*  
 9     *continuing through manufacturing, transportation,*  
 10    *installation, use, reuse, and end-of-life waste manage-*  
 11    *ment.*

12          (16) *LIFE-CYCLE COSTING.*—*The term “life-cycle*  
 13     *costing”, with respect to a high-performance green*  
 14     *building, means a technique of economic evaluation*  
 15     *that—*

16           (A) *sums, over a given study period, the*  
 17     *costs of initial investment (less resale value), re-*  
 18     *placements, operations (including energy use),*  
 19     *and maintenance and repair of an investment*  
 20     *decision; and*

21           (B) *is expressed—*

22           (i) *in present value terms, in the case*  
 23     *of a study period equivalent to the longest*  
 24     *useful life of the building, determined by*  
 25     *taking into consideration the typical life of*

1                    *such a building in the area in which the*  
 2                    *building is to be located; or*

3                    *(ii) in annual value terms, in the case*  
 4                    *of any other study period.*

5                    (17) *OFFICE OF COMMERCIAL HIGH-PERFORM-*  
 6                    *ANCE GREEN BUILDINGS.—The term “Office of Com-*  
 7                    *mercial High-Performance Green Buildings” means*  
 8                    *the Office of Commercial High-Performance Green*  
 9                    *Buildings established under section 421(a).*

10                    (18) *OFFICE OF FEDERAL HIGH-PERFORMANCE*  
 11                    *GREEN BUILDINGS.—The term “Office of Federal*  
 12                    *High-Performance Green Buildings” means the Office*  
 13                    *of Federal High-Performance Green Buildings estab-*  
 14                    *lished under section 436(a).*

15                    (19) *PRACTICES.—The term “practices” means*  
 16                    *design, financing, permitting, construction, commis-*  
 17                    *sioning, operation and maintenance, and other prac-*  
 18                    *tices that contribute to achieving zero-net-energy*  
 19                    *buildings or facilities.*

20                    (20) *ZERO-NET-ENERGY COMMERCIAL BUILD-*  
 21                    *ING.—The term “zero-net-energy commercial build-*  
 22                    *ing” means a commercial building that is designed,*  
 23                    *constructed, and operated to—*

24                    *(A) require a greatly reduced quantity of*  
 25                    *energy to operate;*

1                   (B) meet the balance of energy needs from  
 2                   sources of energy that do not produce greenhouse  
 3                   gases;

4                   (C) therefore result in no net emissions of  
 5                   greenhouse gases; and

6                   (D) be economically viable.

7                   ***Subtitle A—Residential Building***  
 8                   ***Efficiency***

9                   ***SEC. 411. REAUTHORIZATION OF WEATHERIZATION ASSIST-***  
 10                   ***ANCE PROGRAM.***

11                   (a) *IN GENERAL.*—Section 422 of the Energy Con-  
 12                   servation and Production Act (42 U.S.C. 6872) is amended  
 13                   by striking “ appropriated \$500,000,000 for fiscal year  
 14                   2006, \$600,000,000 for fiscal year 2007, and \$700,000,000  
 15                   for fiscal year 2008” and inserting “appropriated—

16                   “(1) \$750,000,000 for fiscal year 2008;

17                   “(2) \$900,000,000 for fiscal year 2009;

18                   “(3) \$1,050,000,000 for fiscal year 2010;

19                   “(4) \$1,200,000,000 for fiscal year 2011; and

20                   “(5) \$1,400,000,000 for fiscal year 2012.”.

21                   (b) *SUSTAINABLE ENERGY RESOURCES FOR CON-*  
 22                   *SUMERS GRANTS.*—

23                   (1) *IN GENERAL.*—The Secretary may make  
 24                   funding available to local weatherization agencies  
 25                   from amounts authorized under the amendment made



1        *by subsection (a) to expand the weatherization assist-*  
 2        *ance program for residential buildings to include ma-*  
 3        *terials, benefits, and renewable and domestic energy*  
 4        *technologies not covered by the program (as of the*  
 5        *date of enactment of this Act), if the State weatheriza-*  
 6        *tion grantee certifies that the applicant has the ca-*  
 7        *capacity to carry out the proposed activities and that*  
 8        *the grantee will include the project in the financial*  
 9        *oversight of the grantee of the weatherization assist-*  
 10       *ance program.*

11            (2) *PRIORITY.—In selecting grant recipients*  
 12        *under this subsection, the Secretary shall give priority*  
 13        *to—*

14                    (A) *the expected effectiveness and benefits of*  
 15                    *the proposed project to low- and moderate-in-*  
 16                    *come energy consumers;*

17                    (B) *the potential for replication of success-*  
 18                    *ful results;*

19                    (C) *the impact on the health and safety and*  
 20                    *energy costs of consumers served; and*

21                    (D) *the extent of partnerships with other*  
 22                    *public and private entities that contribute to the*  
 23                    *resources and implementation of the program,*  
 24                    *including financial partnerships.*

25            (3) *FUNDING.—*

1           (A) *IN GENERAL.*—*Except as provided in*  
 2           *paragraph (2), the amount of funds used for*  
 3           *projects described in paragraph (1) may equal*  
 4           *up to 2 percent of the amount of funds made*  
 5           *available for any fiscal year under section 422*  
 6           *of the Energy Conservation and Production Act*  
 7           *(42 U.S.C. 6872).*

8           (B) *EXCEPTION.*—*No funds may be used for*  
 9           *sustainable energy resources for consumers*  
 10          *grants for a fiscal year under this subsection if*  
 11          *the amount of funds made available for the fiscal*  
 12          *year to carry out the Weatherization Assistance*  
 13          *Program for Low-Income Persons established*  
 14          *under part A of title IV of the Energy Conserva-*  
 15          *tion and Production Act (42 U.S.C. 6861 et seq.)*  
 16          *is less than \$275,000,000.*

17          (c) *DEFINITION OF STATE.*—*Section 412 of the Energy*  
 18          *Conservation and Production Act (42 U.S.C. 6862) is*  
 19          *amended by striking paragraph (8) and inserting the fol-*  
 20          *lowing:*

21               “(8) *STATE.*—*The term ‘State’ means—*

22                       “(A) *a State;*

23                       “(B) *the District of Columbia;*

24                       “(C) *the Commonwealth of Puerto Rico; and*

1                   “(D) any other territory or possession of the  
2                   United States.”.

3 **SEC. 412. STUDY OF RENEWABLE ENERGY REBATE PRO-**  
4 **GRAMS.**

5           (a) *IN GENERAL.*—Not later than 120 days after the  
6 date of enactment of this Act, the Secretary shall conduct,  
7 and submit to Congress a report on, a study regarding the  
8 rebate programs established under sections 124 and 206(c)  
9 of the Energy Policy Act of 2005 (42 U.S.C. 15821, 15853).

10          (b) *COMPONENTS.*—In conducting the study, the Sec-  
11 retary shall—

12               (1) develop a plan for how the rebate programs  
13 would be carried out if the programs were funded;  
14 and

15               (2) determine the minimum amount of funding  
16 the program would need to receive in order to accom-  
17 plish the goals of the programs.

18 **SEC. 413. ENERGY CODE IMPROVEMENTS APPLICABLE TO**  
19 **MANUFACTURED HOUSING.**

20          (a) *ESTABLISHMENT OF STANDARDS.*—

21               (1) *IN GENERAL.*—Not later than 4 years after  
22 the date of enactment of this Act, the Secretary shall  
23 by regulation establish standards for energy efficiency  
24 in manufactured housing.

1           (2) *NOTICE, COMMENT, AND CONSULTATION.*—  
 2           *Standards described in paragraph (1) shall be estab-*  
 3           *lished after—*

4                     (A) *notice and an opportunity for comment*  
 5                     *by manufacturers of manufactured housing and*  
 6                     *other interested parties; and*

7                     (B) *consultation with the Secretary of*  
 8                     *Housing and Urban Development, who may seek*  
 9                     *further counsel from the Manufactured Housing*  
 10                    *Consensus Committee.*

11       (b) *REQUIREMENTS.*—

12               (1) *INTERNATIONAL ENERGY CONSERVATION*  
 13               *CODE.*—*The energy conservation standards established*  
 14               *under this section shall be based on the most recent*  
 15               *version of the International Energy Conservation*  
 16               *Code (including supplements), except in cases in*  
 17               *which the Secretary finds that the code is not cost-ef-*  
 18               *fective, or a more stringent standard would be more*  
 19               *cost-effective, based on the impact of the code on the*  
 20               *purchase price of manufactured housing and on total*  
 21               *life-cycle construction and operating costs.*

22               (2) *CONSIDERATIONS.*—*The energy conservation*  
 23               *standards established under this section may—*

1           (A) take into consideration the design and  
2           factory construction techniques of manufactured  
3           homes;

4           (B) be based on the climate zones established  
5           by the Department of Housing and Urban Devel-  
6           opment rather than the climate zones under the  
7           International Energy Conservation Code; and

8           (C) provide for alternative practices that re-  
9           sult in net estimated energy consumption equal  
10          to or less than the specified standards.

11          (3) *UPDATING.*—The energy conservation stand-  
12          ards established under this section shall be updated  
13          not later than—

14               (A) 1 year after the date of enactment of  
15               this Act; and

16               (B) 1 year after any revision to the Inter-  
17               national Energy Conservation Code.

18          (c) *ENFORCEMENT.*—Any manufacturer of manufac-  
19          tured housing that violates a provision of the regulations  
20          under subsection (a) is liable to the United States for a  
21          civil penalty in an amount not exceeding 1 percent of the  
22          manufacturer's retail list price of the manufactured hous-  
23          ing.

**Subtitle B—High-Performance  
Commercial Buildings**

**SEC. 421. COMMERCIAL HIGH-PERFORMANCE GREEN  
BUILDINGS.**

(a) *DIRECTOR OF COMMERCIAL HIGH-PERFORMANCE  
GREEN BUILDINGS.*—Notwithstanding any other provision  
of law, the Secretary, acting through the Assistant Sec-  
retary of Energy Efficiency and Renewable Energy, shall  
appoint a Director of Commercial High-Performance Green  
Buildings to a position in the career-reserved Senior Execu-  
tive service, with the principal responsibility to—

- (1) *establish and manage the Office of Commer-  
cial High-Performance Green Buildings; and*
- (2) *carry out other duties as required under this  
subtitle.*

(b) *QUALIFICATIONS.*—The Commercial Director shall  
be an individual, who by reason of professional background  
and experience, is specifically qualified to carry out the du-  
ties required under this subtitle.

(c) *DUTIES.*—The Commercial Director shall, with re-  
spect to development of high-performance green buildings  
and zero-energy commercial buildings nationwide—

- (1) *coordinate the activities of the Office of Com-  
mercial High-Performance Green Buildings with the*

1        *activities of the Office of Federal High-Performance*  
2        *Green Buildings;*

3            (2) *develop the legal predicates and agreements*  
4        *for, negotiate, and establish one or more public-pri-*  
5        *ate partnerships with the Consortium, members of*  
6        *the Consortium, and other capable parties meeting the*  
7        *qualifications of the Consortium, to further such de-*  
8        *velopment;*

9            (3) *represent the public and the Department in*  
10       *negotiating and performing in accord with such pub-*  
11       *lic-private partnerships;*

12           (4) *use appropriated funds in an effective man-*  
13       *ner to encourage the maximum investment of private*  
14       *funds to achieve such development;*

15           (5) *promote research and development of high*  
16       *performance green buildings, consistent with section*  
17       *423; and*

18           (6) *jointly establish with the Federal Director a*  
19       *national high-performance green building clearing-*  
20       *house in accordance with section 423(1), which shall*  
21       *provide high-performance green building information*  
22       *and disseminate research results through—*

23                (A) *outreach;*

24                (B) *education; and*

25                (C) *the provision of technical assistance.*

1       (d) *REPORTING.*—*The Commercial Director shall re-*  
 2 *port directly to the Assistant Secretary for Energy Effi-*  
 3 *ciency and Renewable Energy, or to other senior officials*  
 4 *in a way that facilitates the integrated program of this sub-*  
 5 *title for both energy efficiency and renewable energy and*  
 6 *both technology development and technology deployment.*

7       (e) *COORDINATION.*—*The Commercial Director shall*  
 8 *ensure full coordination of high-performance green building*  
 9 *information and activities, including activities under this*  
 10 *subtitle, within the Federal Government by working with*  
 11 *the General Services Administration and all relevant agen-*  
 12 *cies, including, at a minimum—*

13               (1) *the Environmental Protection Agency;*

14               (2) *the Office of the Federal Environmental Ex-*  
 15 *ecutive;*

16               (3) *the Office of Federal Procurement Policy;*

17               (4) *the Department of Energy, particularly the*  
 18 *Federal Energy Management Program;*

19               (5) *the Department of Health and Human Serv-*  
 20 *ices;*

21               (6) *the Department of Housing and Urban De-*  
 22 *velopment;*

23               (7) *the Department of Defense;*

24               (8) *the National Institute of Standards and*  
 25 *Technology;*



1           (9) *the Department of Transportation;*

2           (10) *the Office of Science Technology and Policy;*

3       *and*

4           (11) *such nonprofit high-performance green*

5       *building rating and analysis entities as the Commer-*

6       *cial Director determines can offer support, expertise,*

7       *and review services.*

8       (f) *HIGH-PERFORMANCE GREEN BUILDING PARTNER-*

9       *SHIP CONSORTIUM.—*

10           (1) *RECOGNITION.—Not later than 90 days after*

11       *the date of enactment of this Act, the Commercial Di-*

12       *rector shall formally recognize one or more groups*

13       *that qualify as a high-performance green building*

14       *partnership consortium.*

15           (2) *REPRESENTATION TO QUALIFY.—To qualify*

16       *under this section, any consortium shall include rep-*

17       *resentation from—*

18           (A) *the design professions, including na-*

19       *tional associations of architects and of profes-*

20       *sional engineers;*

21           (B) *the development, construction, finan-*

22       *cial, and real estate industries;*

23           (C) *building owners and operators from the*

24       *public and private sectors;*

1           (D) academic and research organizations,  
 2           including at least one national laboratory with  
 3           extensive commercial building energy expertise;

4           (E) building code agencies and organiza-  
 5           tions, including a model energy code-setting or-  
 6           ganization;

7           (F) independent high-performance green  
 8           building associations or councils;

9           (G) experts in indoor air quality and envi-  
 10          ronmental factors;

11          (H) experts in intelligent buildings and in-  
 12          tegrated building information systems;

13          (I) utility energy efficiency programs;

14          (J) manufacturers and providers of equip-  
 15          ment and techniques used in high performance  
 16          green buildings;

17          (K) public transportation industry experts;  
 18          and

19          (L) nongovernmental energy efficiency orga-  
 20          nizations.

21          (3) *FUNDING.*—The Secretary may make pay-  
 22          ments to the Consortium pursuant to the terms of a  
 23          public-private partnership for such activities of the  
 24          Consortium undertaken under such a partnership as

1       *described in this subtitle directly to the Consortium or*  
 2       *through one or more of its members.*

3       (g) *REPORT.*—*Not later than 2 years after the date*  
 4 *of enactment of this Act, and biennially thereafter, the Com-*  
 5 *mercial Director, in consultation with the Consortium, shall*  
 6 *submit to Congress a report that—*

7               (1) *describes the status of the high-performance*  
 8 *green building initiatives under this subtitle and*  
 9 *other Federal programs affecting commercial high-*  
 10 *performance green buildings in effect as of the date of*  
 11 *the report, including—*

12                       (A) *the extent to which the programs are*  
 13 *being carried out in accordance with this sub-*  
 14 *title; and*

15                       (B) *the status of funding requests and ap-*  
 16 *propriations for those programs; and*

17               (2) *summarizes and highlights development, at*  
 18 *the State and local level, of high-performance green*  
 19 *building initiatives, including executive orders, poli-*  
 20 *cies, or laws adopted promoting high-performance*  
 21 *green building (including the status of implementa-*  
 22 *tion of those initiatives).*

23 **SEC. 422. ZERO NET ENERGY COMMERCIAL BUILDINGS INI-**  
 24 **TIATIVE.**

25       (a) *DEFINITIONS.*—*In this section:*

1           (1) *CONSORTIUM.*—*The term “consortium”*  
 2           *means a High-Performance Green Building Consor-*  
 3           *tium selected by the Commercial Director.*

4           (2) *INITIATIVE.*—*The term “initiative” means*  
 5           *the Zero-Net-Energy Commercial Buildings Initiative*  
 6           *established under subsection (b)(1).*

7           (3) *ZERO-NET-ENERGY COMMERCIAL BUILD-*  
 8           *ING.*—*The term “zero-net-energy commercial build-*  
 9           *ing” means a high-performance commercial building*  
 10          *that is designed, constructed, and operated—*

11                   (A) *to require a greatly reduced quantity of*  
 12                   *energy to operate;*

13                   (B) *to meet the balance of energy needs*  
 14                   *from sources of energy that do not produce green-*  
 15                   *house gases;*

16                   (C) *in a manner that will result in no net*  
 17                   *emissions of greenhouse gases; and*

18                   (D) *to be economically viable.*

19          (b) *ESTABLISHMENT.*—

20           (1) *IN GENERAL.*—*The Commercial Director*  
 21           *shall establish an initiative, to be known as the*  
 22           *“Zero-Net-Energy Commercial Buildings*  
 23           *Initiative”—*

1           (A) to reduce the quantity of energy con-  
 2           sumed by commercial buildings located in the  
 3           United States; and

4           (B) to achieve the development of zero net  
 5           energy commercial buildings in the United  
 6           States.

7           (2) CONSORTIUM.—

8           (A) IN GENERAL.—Not later than 180 days  
 9           after the date of enactment of this Act, the Com-  
 10          mercial Director shall competitively select, and  
 11          enter into an agreement with, a consortium to  
 12          develop and carry out the initiative.

13          (B) AGREEMENTS.—In entering into an  
 14          agreement with a consortium under subpara-  
 15          graph (A), the Commercial Director shall use the  
 16          authority described in section 646(g) of the De-  
 17          partment of Energy Organization Act (42 U.S.C.  
 18          7256(g)), to the maximum extent practicable.

19          (c) GOAL OF INITIATIVE.—The goal of the initiative  
 20          shall be to develop and disseminate technologies, practices,  
 21          and policies for the development and establishment of zero  
 22          net energy commercial buildings for—

23               (1) any commercial building newly constructed  
 24               in the United States by 2030;

1           (2) 50 percent of the commercial building stock  
2       of the United States by 2040; and

3           (3) all commercial buildings in the United  
4       States by 2050.

5       (d) COMPONENTS.—In carrying out the initiative, the  
6       Commercial Director, in consultation with the consortium,  
7       may—

8           (1) conduct research and development on build-  
9       ing science, design, materials, components, equipment  
10      and controls, operation and other practices, integra-  
11      tion, energy use measurement, and benchmarking;

12          (2) conduct pilot programs and demonstration  
13      projects to evaluate replicable approaches to achieving  
14      energy efficient commercial buildings for a variety of  
15      building types in a variety of climate zones;

16          (3) conduct deployment, dissemination, and tech-  
17      nical assistance activities to encourage widespread  
18      adoption of technologies, practices, and policies to  
19      achieve energy efficient commercial buildings;

20          (4) conduct other research, development, dem-  
21      onstration, and deployment activities necessary to  
22      achieve each goal of the initiative, as determined by  
23      the Commercial Director, in consultation with the  
24      consortium;

1           (5) develop training materials and courses for  
2           building professionals and trades on achieving cost-ef-  
3           fective high-performance energy efficient buildings;

4           (6) develop and disseminate public education  
5           materials to share information on the benefits and  
6           cost-effectiveness of high-performance energy efficient  
7           buildings;

8           (7) support code-setting organizations and State  
9           and local governments in developing minimum per-  
10          formance standards in building codes that recognize  
11          the ready availability of many technologies utilized in  
12          high-performance energy efficient buildings;

13          (8) develop strategies for overcoming the split in-  
14          centives between builders and purchasers, and land-  
15          lords and tenants, to ensure that energy efficiency  
16          and high-performance investments are made that are  
17          cost-effective on a lifecycle basis; and

18          (9) develop improved means of measurement and  
19          verification of energy savings and performance for  
20          public dissemination.

21          (e) *COST SHARING*.—In carrying out this section, the  
22          Commercial Director shall require cost sharing in accord-  
23          ance with section 988 of the Energy Policy Act of 2005 (42  
24          U.S.C. 16352).

1       (f) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 2 *authorized to be appropriated to carry out this section—*

3               (1) *\$20,000,000 for fiscal year 2008;*

4               (2) *\$50,000,000 for each of fiscal years 2009 and*  
 5 *2010;*

6               (3) *\$100,000,000 for each of fiscal years 2011*  
 7 *and 2012; and*

8               (4) *\$200,000,000 for each of fiscal years 2013*  
 9 *through 2018.*

10 **SEC. 423. PUBLIC OUTREACH.**

11       *The Commercial Director and Federal Director, in co-*  
 12 *ordination with the Consortium, shall carry out public out-*  
 13 *reach to inform individuals and entities of the information*  
 14 *and services available Governmentwide by—*

15               (1) *establishing and maintaining a national*  
 16 *high-performance green building clearinghouse, in-*  
 17 *cluding on the internet, that—*

18                       (A) *identifies existing similar efforts and*  
 19 *coordinates activities of common interest; and*

20                       (B) *provides information relating to high-*  
 21 *performance green buildings, including*  
 22 *hyperlinks to internet sites that describe the ac-*  
 23 *tivities, information, and resources of—*

24                               (i) *the Federal Government;*

25                               (ii) *State and local governments;*



1                   (iii) the private sector (including non-  
2                   governmental and nonprofit entities and or-  
3                   ganizations); and

4                   (iv) international organizations;

5               (2) identifying and recommending educational  
6               resources for implementing high-performance green  
7               building practices, including security and emergency  
8               benefits and practices;

9               (3) providing access to technical assistance, tools,  
10              and resources for constructing high-performance green  
11              buildings, particularly tools to conduct life-cycle cost-  
12              ing and life-cycle assessment;

13              (4) providing information on application proc-  
14              esses for certifying a high-performance green building,  
15              including certification and commissioning;

16              (5) providing to the public, through the Commer-  
17              cial Director, technical and research information or  
18              other forms of assistance or advice that would be use-  
19              ful in planning and constructing high-performance  
20              green buildings;

21              (6) using such additional methods as are deter-  
22              mined by the Commercial Director to be appropriate  
23              to conduct public outreach;

24              (7) surveying existing research and studies relat-  
25              ing to high-performance green buildings; and

1 (8) *coordinating activities of common interest.*

2 ***Subtitle C—High-Performance***  
 3 ***Federal Buildings***

4 ***SEC. 431. ENERGY REDUCTION GOALS FOR FEDERAL BUILD-***  
 5 ***INGS.***

6 *Section 543(a)(1) of the National Energy Conservation*  
 7 *Policy Act (42 U.S.C. 8253(a)(1)) is amended by striking*  
 8 *the table and inserting the following:*

<b><i>“Fiscal Year</i></b>	<b><i>Percentage reduction</i></b>
<i>2006</i> .....	<i>2</i>
<i>2007</i> .....	<i>4</i>
<i>2008</i> .....	<i>9</i>
<i>2009</i> .....	<i>12</i>
<i>2010</i> .....	<i>15</i>
<i>2011</i> .....	<i>18</i>
<i>2012</i> .....	<i>21</i>
<i>2013</i> .....	<i>24</i>
<i>2014</i> .....	<i>27</i>
<i>2015</i> .....	<i>30.”</i>

9 ***SEC. 432. MANAGEMENT OF ENERGY AND WATER EFFI-***  
 10 ***CIENCY IN FEDERAL BUILDINGS.***

11 *Section 543 of the National Energy Conservation Pol-*  
 12 *icy Act (42 U.S.C. 8253) is amended by adding at the end*  
 13 *the following:*

14 ***“(f) USE OF ENERGY AND WATER EFFICIENCY MEAS-***  
 15 ***URES IN FEDERAL BUILDINGS.—***

16 ***“(1) DEFINITIONS.—In this subsection:***

17 ***“(A) COMMISSIONING.—The term ‘commis-***  
 18 ***sioning’, with respect to a facility, means a sys-***  
 19 ***tematic process—***

1           “(i) of ensuring, using appropriate  
 2           verification and documentation, during the  
 3           period beginning on the initial day of the  
 4           design phase of the facility and ending not  
 5           earlier than 1 year after the date of comple-  
 6           tion of construction of the facility, that all  
 7           facility systems perform interactively in ac-  
 8           cordance with—

9                   “(I) the design documentation  
 10                  and intent of the facility; and

11                  “(II) the operational needs of the  
 12                  owner of the facility, including prepa-  
 13                  ration of operation personnel; and

14           “(ii) the primary goal of which is to  
 15           ensure fully functional systems that can be  
 16           properly operated and maintained during  
 17           the useful life of the facility.

18           “(B) ENERGY MANAGER.—

19                   “(i) IN GENERAL.—The term ‘energy  
 20                  manager’, with respect to a facility, means  
 21                  the individual who is responsible for—

22                  “(I) ensuring compliance with  
 23                  this subsection by the facility; and

24                  “(II) reducing energy use at the  
 25                  facility.

1                   “(ii) *INCLUSIONS.—The term ‘energy*  
2                   *manager’ may include—*

3                   “(I) *a contractor of a facility;*

4                   “(II) *a part-time employee of a*  
5                   *facility; and*

6                   “(III) *an individual who is re-*  
7                   *sponsible for multiple facilities.*

8                   “(C) *FACILITY.—*

9                   “(i) *IN GENERAL.—The term ‘facility’*  
10                  *means any building, installation, structure,*  
11                  *or other property (including any applicable*  
12                  *fixtures) owned or operated by, or con-*  
13                  *structed or manufactured and leased to, the*  
14                  *Federal Government.*

15                  “(ii) *INCLUSIONS.—The term ‘facility’*  
16                  *includes—*

17                  “(I) *a group of facilities at a sin-*  
18                  *gle location or multiple locations man-*  
19                  *aged as an integrated operation; and*

20                  “(II) *contractor-operated facilities*  
21                  *owned by the Federal Government.*

22                  “(iii) *EXCLUSIONS.—The term ‘facil-*  
23                  *ity’ does not include any land or site for*  
24                  *which the cost of utilities is not paid by the*  
25                  *Federal Government.*

1           “(D) *LIFE CYCLE COST-EFFECTIVE*.—The  
 2           term ‘life cycle cost-effective’, with respect to a  
 3           measure, means a measure the estimated savings  
 4           of which exceed the estimated costs over the life-  
 5           span of the measure, as determined in accord-  
 6           ance with section 544.

7           “(E) *PAYBACK PERIOD*.—

8           “(i) *IN GENERAL*.—Subject to clause  
 9           (ii), the term ‘payback period’, with respect  
 10          to a measure, means a value equal to the  
 11          quotient obtained by dividing—

12                   “(I) the estimated initial imple-  
 13                   mentation cost of the measure (other  
 14                   than financing costs); by

15                   “(II) the annual cost savings re-  
 16                   sulting from the measure, including—

17                           “(aa) net savings in esti-  
 18                           mated energy and water costs;  
 19                           and

20                           “(bb) operations, mainte-  
 21                           nance, repair, replacement, and  
 22                           other direct costs.

23           “(ii) *MODIFICATIONS AND EXCEP-*  
 24           *TIONS*.—The Secretary, in guidelines issued  
 25           pursuant to paragraph (6), may make such

1           *modifications and provide such exceptions*  
 2           *to the calculation of the payback period of*  
 3           *a measure as the Secretary determines to be*  
 4           *appropriate to achieve the purposes of this*  
 5           *Act.*

6           “(F) *RECOMMISSIONING*.—The term ‘re-  
 7           *commissioning*’ means a process—

8                   “(i) *of commissioning a facility or sys-*  
 9                   *tem beyond the project development and*  
 10                   *warranty phases of the facility or system;*  
 11                   *and*

12                   “(ii) *the primary goal of which is to*  
 13                   *ensure optimum performance of a facility,*  
 14                   *in accordance with design or current oper-*  
 15                   *ating needs, over the useful life of the facil-*  
 16                   *ity, while meeting building occupancy re-*  
 17                   *quirements.*

18           “(G) *RETROCOMMISSIONING*.—The term  
 19           ‘*retrocommissioning*’ means a process of commis-  
 20           *sioning a facility or system that was not com-*  
 21           *missioned at time of construction of the facility*  
 22           *or system.*

23           “(2) *FACILITY ENERGY MANAGERS*.—

24                   “(A) *IN GENERAL*.—Each Federal agency  
 25           *shall designate an energy manager responsible*

1       *for implementing this subsection and reducing*  
 2       *energy use at each facility that meets criteria*  
 3       *under subparagraph (B).*

4               “(B) *COVERED FACILITIES.*—*The Secretary*  
 5       *shall develop criteria, after consultation with af-*  
 6       *ected agencies, energy efficiency advocates, and*  
 7       *energy and utility service providers, that cover,*  
 8       *at a minimum, Federal facilities, including cen-*  
 9       *tral utility plants and distribution systems and*  
 10       *other energy intensive operations, that constitute*  
 11       *at least 75 percent of facility energy use at each*  
 12       *agency.*

13              “(3) *ENERGY AND WATER EVALUATIONS.*—

14               “(A) *EVALUATIONS.*—*Effective beginning on*  
 15       *the date that is 180 days after the date of enact-*  
 16       *ment of this subsection and annually thereafter,*  
 17       *energy managers shall complete, for each cal-*  
 18       *endar year, a comprehensive energy and water*  
 19       *evaluation for approximately 25 percent of the*  
 20       *facilities of each agency that meet the criteria*  
 21       *under paragraph (2)(B) in a manner that en-*  
 22       *sures that an evaluation of each such facility is*  
 23       *completed at least once every 4 years.*

24               “(B)               *RECOMMISSIONING               AND*  
 25       *RETROCOMMISSIONING.*—*As part of the evalua-*

tion under subparagraph (A), the energy manager shall identify and assess recommissioning measures (or, if the facility has never been commissioned, retrocommissioning measures) for each such facility.

“(4) *IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.*—Not later than 2 years after the completion of each evaluation under paragraph (3), each energy manager may—

“(A) implement any energy- or water-saving measure that the Federal agency identified in the evaluation conducted under paragraph (3) that is life cycle cost-effective; and

“(B) bundle individual measures of varying paybacks together into combined projects.

“(5) *FOLLOW-UP ON IMPLEMENTED MEASURES.*—For each measure implemented under paragraph (4), each energy manager shall ensure that—

“(A) equipment, including building and equipment controls, is fully commissioned at acceptance to be operating at design specifications;

“(B) a plan for appropriate operations, maintenance, and repair of the equipment is in place at acceptance and is followed;



1           “(C) equipment and system performance is  
 2           measured during its entire life to ensure proper  
 3           operations, maintenance, and repair; and

4           “(D) energy and water savings are meas-  
 5           ured and verified.

6           “(6) *GUIDELINES.*—

7           “(A) *IN GENERAL.*—The Secretary shall  
 8           issue guidelines and necessary criteria that each  
 9           Federal agency shall follow for implementation  
 10          of—

11           “(i) paragraphs (2) and (3) not later  
 12          than 180 days after the date of enactment  
 13          of this subsection; and

14           “(ii) paragraphs (4) and (5) not later  
 15          than 1 year after the date of enactment of  
 16          this subsection.

17          “(B) *RELATIONSHIP TO FUNDING*  
 18          *SOURCE.*—The guidelines issued by the Secretary  
 19          under subparagraph (A) shall be appropriate  
 20          and uniform for measures funded with each type  
 21          of funding made available under paragraph  
 22          (10), but may distinguish between different types  
 23          of measures project size, and other criteria the  
 24          Secretary determines are relevant.

25          “(7) *WEB-BASED CERTIFICATION.*—

1           “(A) *IN GENERAL.*—For each facility that  
 2           meets the criteria established by the Secretary  
 3           under paragraph (2)(B), the energy manager  
 4           shall use the web-based tracking system under  
 5           subparagraph (B) to certify compliance with the  
 6           requirements for—

7                   “(i) energy and water evaluations  
 8                   under paragraph (3);

9                   “(ii) implementation of identified en-  
 10                  ergy and water measures under paragraph  
 11                  (4); and

12                  “(iii) follow-up on implemented meas-  
 13                  ures under paragraph (5).

14           “(B) *DEPLOYMENT.*—

15                  “(i) *IN GENERAL.*—Not later than 1  
 16                  year after the date of enactment of this sub-  
 17                  section, the Secretary shall develop and de-  
 18                  ploy a web-based tracking system required  
 19                  under this paragraph in a manner that  
 20                  tracks, at a minimum—

21                   “(I) the covered facilities;

22                   “(II) the status of meeting the re-  
 23                  quirements specified in subparagraph  
 24                  (A);

1           “(III) the estimated cost and sav-  
2           ings for measures required to be imple-  
3           mented in a facility;

4           “(IV) the measured savings and  
5           persistence of savings for implemented  
6           measures; and

7           “(V) the benchmarking informa-  
8           tion disclosed under paragraph (8)(C).

9           “(ii) *EASE OF COMPLIANCE.*—The Sec-  
10          retary shall ensure that energy manager  
11          compliance with the requirements in this  
12          paragraph, to the maximum extent  
13          practicable—

14               “(I) can be accomplished with the  
15               use of streamlined procedures and tem-  
16               plates that minimize the time demands  
17               on Federal employees; and

18               “(II) is coordinated with other  
19               applicable energy reporting require-  
20               ments.

21          “(C) *AVAILABILITY.*—

22               “(i) *IN GENERAL.*—Subject to clause  
23               (ii), the Secretary shall make the web-based  
24               tracking system required under this para-  
25               graph available to Congress, other Federal

1                    *agencies, and the public through the Inter-*  
 2                    *net.*

3                    “(ii) *EXEMPTIONS.*—*At the request of*  
 4                    *a Federal agency, the Secretary may exempt*  
 5                    *specific data for specific facilities from dis-*  
 6                    *closure under clause (i) for national secu-*  
 7                    *rity purposes.*

8                    “(8) *BENCHMARKING OF FEDERAL FACILITIES.*—

9                    “(A) *IN GENERAL.*—*The energy manager*  
 10                    *shall enter energy use data for each metered*  
 11                    *building that is (or is a part of) a facility that*  
 12                    *meets the criteria established by the Secretary*  
 13                    *under paragraph (2)(B) into a building energy*  
 14                    *use benchmarking system, such as the Energy*  
 15                    *Star Portfolio Manager.*

16                    “(B) *SYSTEM AND GUIDANCE.*—*Not later*  
 17                    *than 1 year after the date of enactment of this*  
 18                    *subsection, the Secretary shall—*

19                    “(i) *select or develop the building en-*  
 20                    *ergy use benchmarking system required*  
 21                    *under this paragraph for each type of build-*  
 22                    *ing; and*

23                    “(ii) *issue guidance for use of the sys-*  
 24                    *tem.*

1           “(C) *PUBLIC DISCLOSURE.*—*Each energy*  
 2           *manager shall post the information entered into,*  
 3           *or generated by, a benchmarking system under*  
 4           *this subsections, on the web-based tracking sys-*  
 5           *tem under paragraph (7)(B). The energy man-*  
 6           *ager shall update such information each year,*  
 7           *and shall include in such reporting previous*  
 8           *years’ information to allow changes in building*  
 9           *performance to be tracked over time.*

10          “(9) *FEDERAL AGENCY SCORECARDS.*—

11           “(A) *IN GENERAL.*—*The Director of the Of-*  
 12           *fice of Management and Budget shall issue semi-*  
 13           *annual scorecards for energy management activi-*  
 14           *ties carried out by each Federal agency that*  
 15           *includes—*

16                   “(i) *summaries of the status of imple-*  
 17                   *menting the various requirements of the*  
 18                   *agency and its energy managers under this*  
 19                   *subsection; and*

20                   “(ii) *any other means of measuring*  
 21                   *performance that the Director considers ap-*  
 22                   *propriate.*

23           “(B) *AVAILABILITY.*—*The Director shall*  
 24           *make the scorecards required under this para-*

graph available to Congress, other Federal agencies, and the public through the Internet.

“(10) *FUNDING AND IMPLEMENTATION.*—

“(A) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated such sums as are necessary to carry out this subsection.

“(B) *FUNDING OPTIONS.*—

“(i) *IN GENERAL.*—To carry out this subsection, a Federal agency may use any combination of—

“(I) appropriated funds made available under subparagraph (A); and

“(II) private financing otherwise authorized under Federal law, including financing available through energy savings performance contracts or utility energy service contracts.

“(ii) *COMBINED FUNDING FOR SAME MEASURE.*—A Federal agency may use any combination of appropriated funds and private financing described in clause (i) to carry out the same measure under this subsection.

1                   “(C) *IMPLEMENTATION.*—*Each Federal*  
 2                   *agency may implement the requirements under*  
 3                   *this subsection itself or may contract out per-*  
 4                   *formance of some or all of the requirements.*

5                   “(11) *RULE OF CONSTRUCTION.*—*This subsection*  
 6                   *shall not be construed to require or to obviate any*  
 7                   *contractor savings guarantees.”.*

8   **SEC. 433. FEDERAL BUILDING ENERGY EFFICIENCY PER-**  
 9                   **FORMANCE STANDARDS.**

10           (a) *STANDARDS.*—*Section 305(a)(3) of the Energy*  
 11           *Conservation and Production Act (42 U.S.C. 6834(a)(3))*  
 12           *is amended by adding at the end the following new subpara-*  
 13           *graph:*

14           “(D) *Not later than 1 year after the date of enactment*  
 15           *of the Energy Independence and Security Act of 2007, the*  
 16           *Secretary shall establish, by rule, revised Federal building*  
 17           *energy efficiency performance standards that require that:*

18                   “(i) *For new Federal buildings and Federal*  
 19                   *buildings undergoing major renovations, with respect*  
 20                   *to which the Administrator of General Services is re-*  
 21                   *quired to transmit a prospectus to Congress under*  
 22                   *section 3307 of title 40, United States Code, in the*  
 23                   *case of public buildings (as defined in section 3301 of*  
 24                   *title 40, United States Code), or of at least \$2,500,000*

1        *in costs adjusted annually for inflation for other*  
 2        *buildings:*

3                *“(I) The buildings shall be designed so that*  
 4                *the fossil fuel-generated energy consumption of*  
 5                *the buildings is reduced, as compared with such*  
 6                *energy consumption by a similar building in fis-*  
 7                *cal year 2003 (as measured by Commercial*  
 8                *Buildings Energy Consumption Survey or Resi-*  
 9                *dential Energy Consumption Survey data from*  
 10                *the Energy Information Agency), by the percent-*  
 11                *age specified in the following table:*

<i>“Fiscal Year</i>	<i>Percentage Reduction</i>
<i>2010 .....</i>	<i>55</i>
<i>2015 .....</i>	<i>65</i>
<i>2020 .....</i>	<i>80</i>
<i>2025 .....</i>	<i>90</i>
<i>2030 .....</i>	<i>100.</i>

12                *“(II) Upon petition by an agency subject to*  
 13                *this subparagraph, the Secretary may adjust the*  
 14                *applicable numeric requirement under subclause*  
 15                *(I) downward with respect to a specific building,*  
 16                *if the head of the agency designing the building*  
 17                *certifies in writing that meeting such require-*  
 18                *ment would be technically impracticable in light*  
 19                *of the agency’s specified functional needs for that*  
 20                *building and the Secretary concurs with the*  
 21                *agency’s conclusion. This subclause shall not*  
 22                *apply to the General Services Administration.*



1           “(III) Sustainable design principles shall be  
2           applied to the siting, design, and construction of  
3           such buildings. Not later than 90 days after the  
4           date of enactment of the Energy Independence  
5           and Security Act of 2007, the Secretary, after re-  
6           viewing the findings of the Federal Director  
7           under section 436(h) of that Act, in consultation  
8           with the Administrator of General Services, and  
9           in consultation with the Secretary of Defense for  
10          considerations relating to those facilities under  
11          the custody and control of the Department of De-  
12          fense, shall identify a certification system and  
13          level for green buildings that the Secretary deter-  
14          mines to be the most likely to encourage a com-  
15          prehensive and environmentally-sound approach  
16          to certification of green buildings. The identifica-  
17          tion of the certification system and level shall be  
18          based on a review of the Federal Director’s find-  
19          ings under section 436(h) of the Energy Inde-  
20          pendence and Security Act of 2007 and the cri-  
21          teria specified in clause (iii), shall identify the  
22          highest level the Secretary determines is appro-  
23          priate above the minimum level required for cer-  
24          tification under the system selected, and shall  
25          achieve results at least comparable to the system

1        *used by and highest level referenced by the Gen-*  
2        *eral Services Administration as of the date of en-*  
3        *actment of the Energy Independence and Secu-*  
4        *rity Act of 2007. Within 90 days of the comple-*  
5        *tion of each study required by clause (iv), the*  
6        *Secretary, in consultation with the Adminis-*  
7        *trator of General Services, and in consultation*  
8        *with the Secretary of Defense for considerations*  
9        *relating to those facilities under the custody and*  
10       *control of the Department of Defense, shall re-*  
11       *view and update the certification system and*  
12       *level, taking into account the conclusions of such*  
13       *study.*

14       “(ii) *In establishing criteria for identifying*  
15       *major renovations that are subject to the requirements*  
16       *of this subparagraph, the Secretary shall take into ac-*  
17       *count the scope, degree, and types of renovations that*  
18       *are likely to provide significant opportunities for sub-*  
19       *stantial improvements in energy efficiency.*

20       “(iii) *In identifying the green building certifi-*  
21       *cation system and level, the Secretary shall take into*  
22       *consideration—*

23                “(I) *the ability and availability of assessors*  
24                *and auditors to independently verify the criteria*

1           *and measurement of metrics at the scale nec-*  
2           *essary to implement this subparagraph;*

3           “(II) *the ability of the applicable certifi-*  
4           *cation organization to collect and reflect public*  
5           *comment;*

6           “(III) *the ability of the standard to be de-*  
7           *veloped and revised through a consensus-based*  
8           *process;*

9           “(IV) *an evaluation of the robustness of the*  
10          *criteria for a high-performance green building,*  
11          *which shall give credit for promoting—*

12               “(aa) *efficient and sustainable use of*  
13               *water, energy, and other natural resources;*

14               “(bb) *use of renewable energy sources;*

15               “(cc) *improved indoor environmental*  
16               *quality through enhanced indoor air qual-*  
17               *ity, thermal comfort, acoustics, day light-*  
18               *ing, pollutant source control, and use of*  
19               *low-emission materials and building system*  
20               *controls; and*

21               “(dd) *such other criteria as the Sec-*  
22               *retary determines to be appropriate; and*

23               “(V) *national recognition within the build-*  
24               *ing industry.*

1           “(iv) *At least once every five years, and in ac-*  
2           *cordance with section 436 of the Energy Independence*  
3           *and Security Act of 2007, the Administrator of Gen-*  
4           *eral Services shall conduct a study to evaluate and*  
5           *compare available third-party green building certifi-*  
6           *cation systems and levels, taking into account the cri-*  
7           *teria listed in clause (iii).*

8           “(v) *The Secretary may by rule allow Federal*  
9           *agencies to develop internal certification processes,*  
10          *using certified professionals, in lieu of certification by*  
11          *the certification entity identified under clause*  
12          *(i)(III). The Secretary shall include in any such rule*  
13          *guidelines to ensure that the certification process re-*  
14          *sults in buildings meeting the applicable certification*  
15          *system and level identified under clause (i)(III). An*  
16          *agency employing an internal certification process*  
17          *must continue to obtain external certification by the*  
18          *certification entity identified under clause (i)(III) for*  
19          *at least 5 percent of the total number of buildings cer-*  
20          *tified annually by the agency.*

21          “(vi) *With respect to privatized military hous-*  
22          *ing, the Secretary of Defense, after consultation with*  
23          *the Secretary may, through rulemaking, develop alter-*  
24          *native criteria to those established by subclauses (I)*  
25          *and (III) of clause (i) that achieve an equivalent re-*

1        *sult in terms of energy savings, sustainable design,*  
 2        *and green building performance.*

3            *“(vii) In addition to any use of water conserva-*  
 4        *tion technologies otherwise required by this section,*  
 5        *water conservation technologies shall be applied to the*  
 6        *extent that the technologies are life-cycle cost-effec-*  
 7        *tive.”.*

8        *(b) DEFINITIONS.—Section 303(6) of the Energy Con-*  
 9        *servation and Production Act (42 U.S.C. 6832(6)) is*  
 10       *amended by striking “which is not legally subject to State*  
 11       *or local building codes or similar requirements.” and in-*  
 12       *serting “. Such term shall include buildings built for the*  
 13       *purpose of being leased by a Federal agency, and privatized*  
 14       *military housing.”.*

15       *(c) REVISION OF FEDERAL ACQUISITION REGULA-*  
 16       *TION.—Not later than 2 years after the date of the enact-*  
 17       *ment of this Act, the Federal Acquisition Regulation shall*  
 18       *be revised to require Federal officers and employees to com-*  
 19       *ply with this section and the amendments made by this sec-*  
 20       *tion in the acquisition, construction, or major renovation*  
 21       *of any facility. The members of the Federal Acquisition*  
 22       *Regulatory Council (established under section 25 of the Of-*  
 23       *fice of Federal Procurement Policy Act (41 U.S.C. 421))*  
 24       *shall consult with the Federal Director and the Commercial*

1 *Director before promulgating regulations to carry out this*  
 2 *subsection.*

3       (d) *GUIDANCE.*—*Not later than 90 days after the date*  
 4 *of promulgation of the revised regulations under subsection*  
 5 *(c), the Administrator for Federal Procurement Policy shall*  
 6 *issue guidance to all Federal procurement executives pro-*  
 7 *viding direction and instructions to renegotiate the design*  
 8 *of proposed facilities and major renovations for existing fa-*  
 9 *cilities to incorporate improvements that are consistent*  
 10 *with this section.*

11 **SEC. 434. MANAGEMENT OF FEDERAL BUILDING EFFI-**  
 12 **CIENCY.**

13       (a) *LARGE CAPITAL ENERGY INVESTMENTS.*—*Section*  
 14 *543 of the National Energy Conservation Policy Act (42*  
 15 *U.S.C. 8253) is amended by adding at the end the following:*

16       “(f) *LARGE CAPITAL ENERGY INVESTMENTS.*—

17               “(1) *IN GENERAL.*—*Each Federal agency shall*  
 18 *ensure that any large capital energy investment in an*  
 19 *existing building that is not a major renovation but*  
 20 *involves replacement of installed equipment (such as*  
 21 *heating and cooling systems), or involves renovation,*  
 22 *rehabilitation, expansion, or remodeling of existing*  
 23 *space, employs the most energy efficient designs, sys-*  
 24 *tems, equipment, and controls that are life-cycle cost*  
 25 *effective.*

1           “(2) *PROCESS FOR REVIEW OF INVESTMENT DE-*  
 2           *CISIONS.*—Not later than 180 days after the date of  
 3           *enactment of this subsection, each Federal agency*  
 4           *shall—*

5                     “(A) *develop a process for reviewing each*  
 6                     *decision made on a large capital energy invest-*  
 7                     *ment described in paragraph (1) to ensure that*  
 8                     *the requirements of this subsection are met; and*

9                     “(B) *report to the Director of the Office of*  
 10                    *Management and Budget on the process estab-*  
 11                    *lished.*

12           “(3) *COMPLIANCE REPORT.*—Not later than 1  
 13           *year after the date of enactment of this subsection, the*  
 14           *Director of the Office of Management and Budget*  
 15           *shall evaluate and report to Congress on the compli-*  
 16           *ance of each agency with this subsection.”.*

17           (b) *METERING.*—Section 543(e)(1) of the National En-  
 18           *ergy Conservation Policy Act (42 U.S.C. 8253(e)(1)) is*  
 19           *amended by inserting after the second sentence the fol-*  
 20           *lowing: “Not later than October 1, 2016, each agency shall*  
 21           *provide for equivalent metering of natural gas and steam,*  
 22           *in accordance with guidelines established by the Secretary*  
 23           *under paragraph (2).”.*

1 **SEC. 435. LEASING.**

2 (a) *IN GENERAL.*—*Except as provided in subsection*  
 3 *(b), effective beginning on the date that is 3 years after the*  
 4 *date of enactment of this Act, no Federal agency shall enter*  
 5 *into a contract to lease space in a building that has not*  
 6 *earned the Energy Star label in the most recent year.*

7 (b) *EXCEPTION.*—

8 (1) *APPLICATION.*—*This subsection applies if—*

9 (A) *no space is available in a building de-*  
 10 *scribed in subsection (a) that meets the func-*  
 11 *tional requirements of an agency, including loca-*  
 12 *tional needs;*

13 (B) *the agency proposes to remain in a*  
 14 *building that the agency has occupied previously;*

15 (C) *the agency proposes to lease a building*  
 16 *of historical, architectural, or cultural signifi-*  
 17 *cance (as defined in section 3306(a)(4) of title*  
 18 *40, United States Code) or space in such a*  
 19 *building; or*

20 (D) *the lease is for not more than 10,000*  
 21 *gross square feet of space.*

22 (2) *BUILDINGS WITHOUT ENERGY STAR*  
 23 *LABEL.*—*If 1 of the conditions described in paragraph*  
 24 *(2) is met, the agency may enter into a contract to*  
 25 *lease space in a building that has not earned the En-*  
 26 *ergy Star label in the most recent year if the lease*



1        *contract includes provisions requiring that, prior to*  
 2        *occupancy or, in the case of a contract described in*  
 3        *paragraph (1)(B), not later than 1 year after signing*  
 4        *the contract, the space will be renovated for all energy*  
 5        *efficiency and conservation improvements that would*  
 6        *be cost effective over the life of the lease, including im-*  
 7        *provements in lighting, windows, and heating, ven-*  
 8        *tilation, and air conditioning systems.*

9        *(c) REVISION OF FEDERAL ACQUISITION REGULA-*  
 10      *TION.—*

11            *(1) IN GENERAL.—Not later than 3 years after*  
 12        *the date of the enactment of this Act, the Federal Ac-*  
 13        *quisition Regulation described in section 6(a) of the*  
 14        *Office of Federal Procurement Policy Act (41 U.S.C.*  
 15        *405(a)) shall be revised to require Federal officers and*  
 16        *employees to comply with this section in leasing*  
 17        *buildings.*

18            *(2) CONSULTATION.—The members of the Federal*  
 19        *Acquisition Regulatory Council established under sec-*  
 20        *tion 25 of the Office of Federal Procurement Policy*  
 21        *Act (41 U.S.C. 421)) shall consult with the Federal*  
 22        *Director and the Commercial Director before promul-*  
 23        *gating regulations to carry out this subsection.*

1 **SEC. 436. HIGH-PERFORMANCE GREEN FEDERAL BUILD-**  
 2 **INGS.**

3 (a) *ESTABLISHMENT OF OFFICE.*—Not later than 60  
 4 days after the date of enactment of this Act, the Adminis-  
 5 trator shall establish within the General Services Adminis-  
 6 tration an Office of Federal High-Performance Green  
 7 Buildings, and appoint an individual to serve as Federal  
 8 Director in, a position in the career-reserved Senior Execu-  
 9 tive service, to—

10 (1) *establish and manage the Office of Federal*  
 11 *High-Performance Green Buildings; and*

12 (2) *carry out other duties as required under this*  
 13 *subtitle.*

14 (b) *COMPENSATION.*—The compensation of the Federal  
 15 Director shall not exceed the maximum rate of basic pay  
 16 for the Senior Executive Service under section 5382 of title  
 17 5, United States Code, including any applicable locality-  
 18 based comparability payment that may be authorized under  
 19 section 5304(h)(2)(C) of that title.

20 (c) *DUTIES.*—The Federal Director shall—

21 (1) *coordinate the activities of the Office of Fed-*  
 22 *eral High-Performance Green Buildings with the ac-*  
 23 *tivities of the Office of Commercial High-Performance*  
 24 *Green Buildings, and the Secretary, in accordance*  
 25 *with section 305(a)(3)(D) of the Energy Conservation*  
 26 *and Production Act (42 U.S.C. 6834(a)(3)(D));*

1           (2) *ensure full coordination of high-performance*  
2           *green building information and activities within the*  
3           *General Services Administration and all relevant*  
4           *agencies, including, at a minimum—*

5                     *(A) the Environmental Protection Agency;*

6                     *(B) the Office of the Federal Environmental*  
7           *Executive;*

8                     *(C) the Office of Federal Procurement Pol-*  
9           *icy;*

10                    *(D) the Department of Energy;*

11                    *(E) the Department of Health and Human*  
12           *Services;*

13                    *(F) the Department of Defense;*

14                    *(G) the Department of Transportation;*

15                    *(H) the National Institute of Standards*  
16           *and Technology; and*

17                    *(I) the Office of Science and Technology*  
18           *Policy;*

19           (3) *establish a senior-level Federal Green Build-*  
20           *ing Advisory Committee under section 474, which*  
21           *shall provide advice and recommendations in accord-*  
22           *ance with that section and subsection (d);*

23           (4) *identify and every 5 years reassess improved*  
24           *or higher rating standards recommended by the Advi-*  
25           *sory Committee;*

1           (5) *ensure full coordination, dissemination of in-*  
 2           *formation regarding, and promotion of the results of*  
 3           *research and development information relating to*  
 4           *Federal high-performance green building initiatives;*

5           (6) *identify and develop Federal high-perform-*  
 6           *ance green building standards for all types of Federal*  
 7           *facilities, consistent with the requirements of this sub-*  
 8           *title and section 305(a)(3)(D) of the Energy Con-*  
 9           *servation and Production Act (42 U.S.C.*  
 10          *6834(a)(3)(D));*

11          (7) *establish green practices that can be used*  
 12          *throughout the life of a Federal facility;*

13          (8) *review and analyze current Federal budget*  
 14          *practices and life-cycle costing issues, and make rec-*  
 15          *ommendations to Congress, in accordance with sub-*  
 16          *section (d); and*

17          (9) *identify opportunities to demonstrate innova-*  
 18          *tive and emerging green building technologies and*  
 19          *concepts.*

20          (d) *ADDITIONAL DUTIES.—The Federal Director, in*  
 21          *consultation with the Commercial Director and the Advi-*  
 22          *sory Committee, and consistent with the requirements of*  
 23          *section 305(a)(3)(D) of the Energy Conservation and Pro-*  
 24          *duction Act (42 U.S.C. 6834(a)(3)(D)) shall—*

1           (1) identify, review, and analyze current budget  
 2           and contracting practices that affect achievement of  
 3           high-performance green buildings, including the iden-  
 4           tification of barriers to high-performance green build-  
 5           ing life-cycle costing and budgetary issues;

6           (2) develop guidance and conduct training ses-  
 7           sions with budget specialists and contracting per-  
 8           sonnel from Federal agencies and budget examiners to  
 9           apply life-cycle cost criteria to actual projects;

10          (3) identify tools to aid life-cycle cost decision-  
 11          making; and

12          (4) explore the feasibility of incorporating the  
 13          benefits of high-performance green buildings, such as  
 14          security benefits, into a cost-budget analysis to aid in  
 15          life-cycle costing for budget and decisionmaking proc-  
 16          esses.

17          (e) *INCENTIVES*.—Within 90 days after the date of en-  
 18          actment of this Act, the Federal Director shall identify in-  
 19          centives to encourage the expedited use of high-performance  
 20          green buildings and related technology in the operations of  
 21          the Federal Government, in accordance with the require-  
 22          ments of section 305(a)(3)(D) of the Energy Conservation  
 23          and Production Act (42 U.S.C. 6834(a)(3)(D)), including  
 24          through—

25          (1) the provision of recognition awards; and

1           (2) *the maximum feasible retention of financial*  
2           *savings in the annual budgets of Federal agencies for*  
3           *use in reinvesting in future high-performance green*  
4           *building initiatives.*

5           (f) *REPORT.*—*Not later than 2 years after the date of*  
6           *enactment of this Act, and biennially thereafter, the Federal*  
7           *Director, in consultation with the Secretary, shall submit*  
8           *to Congress a report that—*

9                   (1) *describes the status of compliance with this*  
10           *subtitle, the requirements of section 305(a)(3)(D) of*  
11           *the Energy Conservation and Production Act (42*  
12           *U.S.C. 6834(a)(3)(D)), and other Federal high-per-*  
13           *formance green building initiatives in effect as of the*  
14           *date of the report, including—*

15                           (A) *the extent to which the programs are*  
16                           *being carried out in accordance with this subtitle*  
17                           *and the requirements of section 305(a)(3)(D) of*  
18                           *that Act; and*

19                           (B) *the status of funding requests and ap-*  
20                           *propriations for those programs;*

21           (2) *identifies within the planning, budgeting,*  
22           *and construction process all types of Federal facility*  
23           *procedures that may affect the certification of new*  
24           *and existing Federal facilities as high-performance*  
25           *green buildings under the provisions of section*

1       305(a)(3)(D) of that Act and the criteria established  
2       in subsection (h);

3           (3) identifies inconsistencies, as reported to the  
4       Advisory Committee, in Federal law with respect to  
5       product acquisition guidelines and high-performance  
6       product guidelines;

7           (4) recommends language for uniform standards  
8       for use by Federal agencies in environmentally re-  
9       sponsible acquisition;

10          (5) in coordination with the Office of Manage-  
11       ment and Budget, reviews the budget process for cap-  
12       ital programs with respect to alternatives for—

13           (A) restructuring of budgets to require the  
14       use of complete energy and environmental cost  
15       accounting;

16           (B) using operations expenditures in budg-  
17       et-related decisions while simultaneously incor-  
18       porating productivity and health measures (as  
19       those measures can be quantified by the Office of  
20       Federal High-Performance Green Buildings,  
21       with the assistance of universities and national  
22       laboratories);

23           (C) streamlining measures for permitting  
24       Federal agencies to retain all identified savings  
25       accrued as a result of the use of life-cycle costing

1       *for future high-performance green building ini-*  
2       *tiatives; and*

3               *(D) identifying short-term and long-term*  
4       *cost savings that accrue from high-performance*  
5       *green buildings, including those relating to*  
6       *health and productivity;*

7       *(6) identifies green, self-sustaining technologies*  
8       *to address the operational needs of Federal facilities*  
9       *in times of national security emergencies, natural dis-*  
10       *asters, or other dire emergencies;*

11       *(7) summarizes and highlights development, at*  
12       *the State and local level, of high-performance green*  
13       *building initiatives, including executive orders, poli-*  
14       *cies, or laws adopted promoting high-performance*  
15       *green building (including the status of implementa-*  
16       *tion of those initiatives); and*

17       *(8) includes, for the 2-year period covered by the*  
18       *report, recommendations to address each of the mat-*  
19       *ters, and a plan for implementation of each rec-*  
20       *ommendation, described in paragraphs (1) through*  
21       *(7).*

22       *(g) IMPLEMENTATION.—The Office of Federal High-*  
23       *Performance Green Buildings shall carry out each plan for*  
24       *implementation of recommendations under subsection*  
25       *(f)(8).*



1       (h) *IDENTIFICATION OF CERTIFICATION SYSTEM.*—

2               (1) *IN GENERAL.*—For the purpose of this sec-  
3       tion, not later than 60 days after the date of enact-  
4       ment of this Act, the Federal Director shall identify  
5       and shall provide to the Secretary pursuant to section  
6       305(a)(3)(D) of the Energy Conservation and Produc-  
7       tion Act (42 U.S.C. 6834(a)(3)(D)), a certification  
8       system that the Director determines to be the most  
9       likely to encourage a comprehensive and environ-  
10      mentally-sound approach to certification of green  
11      buildings.

12              (2) *BASIS.*—The system identified under para-  
13      graph (1) shall be based on—

14                      (A) a study completed every 5 years and  
15                      provided to the Secretary pursuant to section  
16                      305(a)(3)(D) of that Act, which shall be carried  
17                      out by the Federal Director to compare and  
18                      evaluate standards;

19                      (B) the ability and availability of assessors  
20                      and auditors to independently verify the criteria  
21                      and measurement of metrics at the scale nec-  
22                      essary to implement this subtitle;

23                      (C) the ability of the applicable standard-  
24                      setting organization to collect and reflect public  
25                      comment;

1           (D) the ability of the standard to be devel-  
2           oped and revised through a consensus-based proc-  
3           ess;

4           (E) an evaluation of the robustness of the  
5           criteria for a high performance green building,  
6           which shall give credit for promoting—

7                 (i) efficient and sustainable use of  
8                 water, energy, and other natural resources;

9                 (ii) use of renewable energy sources;

10                (iii) improved indoor environmental  
11                quality through enhanced indoor air qual-  
12                ity, thermal comfort, acoustics, day light-  
13                ing, pollutant source control, and use of  
14                low-emission materials and building system  
15                controls;

16                (iv) reduced impacts from transpor-  
17                tation through building location and site  
18                design that promote access by public trans-  
19                portation; and

20                (v) such other criteria as the Federal  
21                Director determines to be appropriate; and

22           (F) national recognition within the build-  
23           ing industry.

1 **SEC. 437. FEDERAL GREEN BUILDING PERFORMANCE.**

2       (a) *IN GENERAL.*—Not later than October 31 of each  
 3 of the 2 fiscal years following the fiscal year in which this  
 4 Act is enacted, and at such times thereafter as the Comp-  
 5 troller General of the United States determines to be appro-  
 6 priate, the Comptroller General of the United States shall,  
 7 with respect to the fiscal years that have passed since the  
 8 preceding report—

9           (1) *conduct an audit of the implementation of*  
 10 *this subtitle, section 305(a)(3)(D) of the Energy Con-*  
 11 *servation and Production Act (42 U.S.C.*  
 12 *6834(a)(3)(D)), and section 435; and*

13           (2) *submit to the Federal Director, the Advisory*  
 14 *Committee, the Administrator, and Congress a report*  
 15 *describing the results of the audit.*

16       (b) *CONTENTS.*—An audit under subsection (a) shall  
 17 include a review, with respect to the period covered by the  
 18 report under subsection (a)(2), of—

19           (1) *budget, life-cycle costing, and contracting*  
 20 *issues, using best practices identified by the Comp-*  
 21 *troller General of the United States and heads of other*  
 22 *agencies in accordance with section 436(d);*

23           (2) *the level of coordination among the Federal*  
 24 *Director, the Office of Management and Budget, the*  
 25 *Department of Energy, and relevant agencies;*

20 **SEC. 438. STORM WATER RUNOFF REQUIREMENTS FOR FED-**  
21 **ERAL DEVELOPMENT PROJECTS.**

22        *The sponsor of any development or redevelopment*  
23 *project involving a Federal facility with a footprint that*  
24 *exceeds 5,000 square feet shall use site planning, design,*  
25 *construction, and maintenance strategies for the property*

1 *to maintain or restore, to the maximum extent technically*  
 2 *feasible, the predevelopment hydrology of the property with*  
 3 *regard to the temperature, rate, volume, and duration of*  
 4 *flow.*

5 **SEC. 439. COST-EFFECTIVE TECHNOLOGY ACCELERATION**  
 6 **PROGRAM.**

7 (a) *DEFINITION OF ADMINISTRATOR.*—*In this section,*  
 8 *the term “Administrator” means the Administrator of Gen-*  
 9 *eral Services.*

10 (b) *ESTABLISHMENT.*—

11 (1) *IN GENERAL.*—*The Administrator shall es-*  
 12 *tablish a program to accelerate the use of more cost-*  
 13 *effective technologies and practices at GSA facilities.*

14 (2) *REQUIREMENTS.*—*The program established*  
 15 *under this subsection shall—*

16 (A) *ensure centralized responsibility for the*  
 17 *coordination of cost reduction-related rec-*  
 18 *ommendations, practices, and activities of all*  
 19 *relevant Federal agencies;*

20 (B) *provide technical assistance and oper-*  
 21 *ational guidance to applicable tenants to achieve*  
 22 *the goal identified in subsection (c)(2)(B)(ii);*

23 (C) *establish methods to track the success of*  
 24 *Federal departments and agencies with respect to*  
 25 *that goal; and*

1           (D) be fully coordinated with and no less  
 2           stringent nor less energy-conserving or water-  
 3           conserving than required by other provisions of  
 4           this Act and other applicable law, including sec-  
 5           tions 321 through 324, 431 through 438, 461,  
 6           511 through 518, and 523 through 525 and  
 7           amendments made by those sections.

8           (c) *ACCELERATED USE OF TECHNOLOGIES.*—

9           (1) *REVIEW.*—

10           (A) *IN GENERAL.*—As part of the program  
 11           under this section, not later than 90 days after  
 12           the date of enactment of this Act, the Adminis-  
 13           trator shall conduct a review of—

14                   (i) current use of cost-effective lighting  
 15                   technologies and geothermal heat pumps in  
 16                   GSA facilities; and

17                   (ii) the availability to managers of  
 18                   GSA facilities of cost-effective lighting tech-  
 19                   nologies and geothermal heat pumps.

20           (B) *REQUIREMENTS.*—The review under  
 21           subparagraph (A) shall—

22                   (i) examine the use of cost-effective  
 23                   lighting technologies, geothermal heat  
 24                   pumps, and other cost-effective technologies

1                   *and practices by Federal agencies in GSA*  
2                   *facilities; and*

3                   (ii) *as prepared in consultation with*  
4                   *the Administrator of the Environmental*  
5                   *Protection Agency, identify cost-effective*  
6                   *lighting technology and geothermal heat*  
7                   *pump technology standards that could be*  
8                   *used for all types of GSA facilities.*

9                   (2) *REPLACEMENT.—*

10                   (A) *IN GENERAL.—As part of the program*  
11                   *under this section, not later than 180 days after*  
12                   *the date of enactment of this Act, the Adminis-*  
13                   *trator shall establish, using available appropria-*  
14                   *tions and programs implementing sections 432*  
15                   *and 525 (and amendments made by those sec-*  
16                   *tions), a cost-effective lighting technology and*  
17                   *geothermal heat pump technology acceleration*  
18                   *program to achieve maximum feasible replace-*  
19                   *ment of existing lighting, heating, cooling tech-*  
20                   *nologies with cost-effective lighting technologies*  
21                   *and geothermal heat pump technologies in each*  
22                   *GSA facility. Such program shall fully comply*  
23                   *with the requirements of sections 321 through*  
24                   *324, 431 through 438, 461, 511 through 518, and*  
25                   *523 through 525 and amendments made by those*

1        *sections and any other provisions of law, which*  
2        *shall be applicable to the extent that they are*  
3        *more stringent or would achieve greater energy*  
4        *savings than required by this section.*

5                *(B) ACCELERATION PLAN TIMETABLE.—*

6                *(i) IN GENERAL.—To implement the*  
7        *program established under subparagraph*  
8        *(A), not later than 1 year after the date of*  
9        *enactment of this Act, the Administrator*  
10       *shall establish a timetable of actions to com-*  
11       *ply with the requirements of this section*  
12       *and sections 431 through 435, whichever*  
13       *achieves greater energy savings most expedi-*  
14       *tiously, including milestones for specific ac-*  
15       *tivities needed to replace existing lighting,*  
16       *heating, cooling technologies with cost-effec-*  
17       *tive lighting technologies and geothermal*  
18       *heat pump technologies, to the maximum*  
19       *extent feasible (including at the maximum*  
20       *rate feasible), at each GSA facility.*

21               *(ii) GOAL.—The goal of the timetable*  
22       *under clause (i) shall be to complete, using*  
23       *available appropriations and programs im-*  
24       *plementing sections 431 through 435 (and*  
25       *amendments made by those sections), max-*



imum feasible replacement of existing lighting, heating, and cooling technologies with cost-effective lighting technologies and geothermal heat pump technologies consistent with the requirements of this section and sections 431 through 435, whichever achieves greater energy savings most expeditiously. Notwithstanding any provision of this section, such program shall fully comply with the requirements of the Act including sections 321 through 324, 431 through 438, 461, 511 through 518, and 523 through 525 and amendments made by those sections and other provisions of law, which shall be applicable to the extent that they are more stringent or would achieve greater energy or water savings than required by this section.

(d) *GSA FACILITY TECHNOLOGIES AND PRACTICES.*—

(1) *IN GENERAL.*—Not later than 180 days after the date of enactment of this Act, and annually thereafter, the Administrator shall—

(A) ensure that a manager responsible for implementing section 432 and for accelerating

1        *the use of cost-effective technologies and practices*  
2        *is designated for each GSA facility; and*

3                *(B) submit to Congress a plan to comply*  
4        *with section 432, this section, and other applica-*  
5        *ble provisions of this Act and applicable law*  
6        *with respect to energy and water conservation at*  
7        *GSA facilities.*

8                *(2) MEASURES.—The plan shall implement*  
9        *measures required by such other provisions of law in*  
10       *accordance with those provisions, and shall imple-*  
11       *ment the measures required by this section to the*  
12       *maximum extent feasible (including at the maximum*  
13       *rate feasible) using available appropriations and pro-*  
14       *grams implementing sections 431 through 435 and*  
15       *525 (and amendments made by those sections), by not*  
16       *later than the date that is 5 years after the date of*  
17       *enactment of this Act.*

18                *(3) CONTENTS OF PLAN.—The plan shall—*

19                        *(A) with respect to cost-effective technologies*  
20        *and practices—*

21                                *(i) identify the specific activities need-*  
22        *ed to comply with sections 431 through 435;*

23                                *(ii) identify the specific activities need-*  
24        *ed to achieve at least a 20-percent reduction*  
25        *in operational costs through the application*

1           *of cost-effective technologies and practices*  
2           *from 2003 levels at GSA facilities by not*  
3           *later than 5 years after the date of enact-*  
4           *ment of this Act;*

5           *(iii) describe activities required and*  
6           *carried out to estimate the funds necessary*  
7           *to achieve the reduction described in clauses*  
8           *(i) and (ii);*

9           *(B) include an estimate of the funds nec-*  
10          *essary to carry out this section;*

11          *(C) describe the status of the implementa-*  
12          *tion of cost-effective technologies and practices at*  
13          *GSA facilities, including—*

14           *(i) the extent to which programs, in-*  
15           *cluding the program established under sub-*  
16           *section (b), are being carried out in accord-*  
17           *ance with this subtitle; and*

18           *(ii) the status of funding requests and*  
19           *appropriations for those programs;*

20          *(D) identify within the planning, budg-*  
21          *eting, and construction processes, all types of*  
22          *GSA facility-related procedures that inhibit new*  
23          *and existing GSA facilities from implementing*  
24          *cost-effective technologies;*

1           (E) recommend language for uniform stand-  
2           ards for use by Federal agencies in imple-  
3           menting cost-effective technologies and practices;

4           (F) in coordination with the Office of Man-  
5           agement and Budget, review the budget process  
6           for capital programs with respect to alternatives  
7           for—

8                   (i) implementing measures that will  
9                   assure that Federal agencies retain all iden-  
10                  tified savings accrued as a result of the use  
11                  of cost-effective technologies, consistent with  
12                  section 543(a)(1) of the National Energy  
13                  Conservation Policy Act (42 U.S.C.  
14                  8253(a)(1), and other applicable law; and

15                  (ii) identifying short- and long-term  
16                  cost savings that accrue from the use of cost-  
17                  effective technologies and practices;

18           (G) with respect to cost-effective technologies  
19           and practices, achieve substantial operational  
20           cost savings through the application of the tech-  
21           nologies; and

22           (H) include recommendations to address  
23           each of the matters, and a plan for implementa-  
24           tion of each recommendation, described in sub-  
25           paragraphs (A) through (G).

1           (4) *ADMINISTRATION.*—*Notwithstanding any*  
 2           *provision of this section, the program required under*  
 3           *this section shall fully comply with the requirements*  
 4           *of sections 321 through 324, 431 through 438, 461,*  
 5           *511 through 518, and 523 through 525 and amend-*  
 6           *ments made by those sections, which shall be applica-*  
 7           *ble to the extent that they are more stringent or would*  
 8           *achieve greater energy or water savings than required*  
 9           *by this section.*

10          (e) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 11          *authorized to be appropriated such sums as are necessary*  
 12          *to carry out this section, to remain available until ex-*  
 13          *pended.*

14       **SEC. 440. AUTHORIZATION OF APPROPRIATIONS.**

15          *There is authorized to be appropriated to carry out*  
 16          *sections 434 through 439 and 482 \$4,000,000 for each of*  
 17          *fiscal years 2008 through 2012, to remain available until*  
 18          *expended.*

19       **SEC. 441. PUBLIC BUILDING LIFE-CYCLE COSTS.**

20          *Section 544(a)(1) of the National Energy Conservation*  
 21          *Policy Act (42 U.S.C. 8254(a)(1)) is amended by striking*  
 22          *“25” and inserting “40”.*

1       ***Subtitle D—Industrial Energy***  
 2               ***Efficiency***

3   ***SEC. 451. INDUSTRIAL ENERGY EFFICIENCY.***

4       (a) *IN GENERAL.*—Title III of the Energy Policy and  
 5   Conservation Act (42 U.S.C. 6291 et seq.) is amended by  
 6   inserting after part D the following:

7       ***“PART E—INDUSTRIAL ENERGY EFFICIENCY***

8   ***“SEC. 371. DEFINITIONS.***

9       *“In this part:*

10           “(1) *ADMINISTRATOR.*—The term ‘Adminis-

11   trator’ means the Administrator of the Environ-

12   mental Protection Agency.

13           “(2) *COMBINED HEAT AND POWER.*—The term

14   ‘combined heat and power system’ means a facility

15   that—

16           “(A) *simultaneously and efficiently pro-*

17   *duces useful thermal energy and electricity; and*

18           “(B) *recovers not less than 60 percent of the*

19   *energy value in the fuel (on a higher-heating-*

20   *value basis) in the form of useful thermal energy*

21   *and electricity.*

22           “(3) *NET EXCESS POWER.*—The term ‘net excess

23   power’ means, for any facility, recoverable waste en-

24   ergy recovered in the form of electricity in quantities

25   exceeding the total consumption of electricity at the

1       *specific time of generation on the site at which the fa-*  
 2       *cility is located.*

3               “(4) *PROJECT.*—*The term ‘project’ means a re-*  
 4       *coverable waste energy project or a combined heat and*  
 5       *power system project.*

6               “(5) *RECOVERABLE WASTE ENERGY.*—*The term*  
 7       *‘recoverable waste energy’ means waste energy from*  
 8       *which electricity or useful thermal energy may be re-*  
 9       *covered through modification of an existing facility or*  
 10       *addition of a new facility.*

11              “(6) *REGISTRY.*—*The term ‘Registry’ means the*  
 12       *Registry of Recoverable Waste Energy Sources estab-*  
 13       *lished under section 372(d).*

14              “(7) *USEFUL THERMAL ENERGY.*—*The term*  
 15       *‘useful thermal energy’ means energy—*

16                   “(A) *in the form of direct heat, steam, hot*  
 17       *water, or other thermal form that is used in pro-*  
 18       *duction and beneficial measures for heating,*  
 19       *cooling, humidity control, process use, or other*  
 20       *valid thermal end-use energy requirements; and*

21                   “(B) *for which fuel or electricity would oth-*  
 22       *erwise be consumed.*

23              “(8) *WASTE ENERGY.*—*The term ‘waste energy’*  
 24       *means—*

1           “(A) exhaust heat or flared gas from any  
2           industrial process;

3           “(B) waste gas or industrial tail gas that  
4           would otherwise be flared, incinerated, or vented;

5           “(C) a pressure drop in any gas, excluding  
6           any pressure drop to a condenser that subse-  
7           quently vents the resulting heat; and

8           “(D) such other forms of waste energy as the  
9           Administrator may determine.

10          “(9) *OTHER TERMS.*—The terms ‘electric utility’,  
11          ‘nonregulated electric utility’, ‘State regulated electric  
12          utility’, and other terms have the meanings given  
13          those terms in title I of the Public Utility Regulatory  
14          Policies Act of 1978 (16 U.S.C. 2611 et seq.).

15       **“SEC. 372. SURVEY AND REGISTRY.**

16          “(a) *RECOVERABLE WASTE ENERGY INVENTORY PRO-*  
17       *GRAM.*—

18               “(1) *IN GENERAL.*—The Administrator, in co-  
19               operation with the Secretary and State energy offices,  
20               shall establish a recoverable waste energy inventory  
21               program.

22               “(2) *SURVEY.*—The program shall include—

23                       “(A) an ongoing survey of all major indus-  
24                       trial and large commercial combustion sources  
25                       in the United States (as defined by the Adminis-



1        *trator) and the sites at which the sources are lo-*  
 2        *cated; and*

3                *“(B) a review of each source for the quan-*  
 4        *tity and quality of waste energy produced at the*  
 5        *source.*

6        *“(b) CRITERIA.—*

7                *“(1) IN GENERAL.—Not later than 270 days*  
 8        *after the date of enactment of the Energy Independ-*  
 9        *ence and Security Act of 2007, the Administrator*  
 10       *shall publish a rule for establishing criteria for in-*  
 11       *cluding sites in the Registry.*

12               *“(2) INCLUSIONS.—The criteria shall include—*

13                *“(A) a requirement that, to be included in*  
 14        *the Registry, a project at the site shall be deter-*  
 15        *mined to be economically feasible by virtue of of-*  
 16        *fering a payback of invested costs not later than*  
 17        *5 years after the date of first full project oper-*  
 18        *ation (including incentives offered under this*  
 19        *part);*

20                *“(B) standards to ensure that projects pro-*  
 21        *posed for inclusion in the Registry are not devel-*  
 22        *oped or used for the primary purpose of making*  
 23        *sales of excess electric power under the regulatory*  
 24        *provisions of this part; and*

1                   “(C) procedures for contesting the listing of  
2                   any source or site on the Registry by any State,  
3                   utility, or other interested person.

4                   “(c) *TECHNICAL SUPPORT*.—On the request of the  
5 owner or operator of a source or site included in the Reg-  
6 istry, the Secretary shall—

7                   “(1) provide to owners or operators of combus-  
8 tion sources technical support; and

9                   “(2) offer partial funding (in an amount equal  
10 to not more than  $\frac{1}{2}$  of total costs) for feasibility stud-  
11 ies to confirm whether or not investment in recovery  
12 of waste energy or combined heat and power at a  
13 source would offer a payback period of 5 years or less.

14                   “(d) *REGISTRY*.—

15                   “(1) *ESTABLISHMENT*.—

16                   “(A) *IN GENERAL*.—Not later than 1 year  
17 after the date of enactment of the Energy Inde-  
18 pendence and Security Act of 2007, the Adminis-  
19 trator shall establish a Registry of Recoverable  
20 Waste Energy Sources, and sites on which the  
21 sources are located, that meet the criteria estab-  
22 lished under subsection (b).

23                   “(B) *UPDATES; AVAILABILITY*.—The Ad-  
24 ministrator shall—

1 “(i) update the Registry on a regular  
2 basis; and

3 “(ii) make the Registry available to the  
4 public on the website of the Environmental  
5 Protection Agency.

6 “(C) *CONTESTING LISTING.*—Any State,  
7 electric utility, or other interested person may  
8 contest the listing of any source or site by sub-  
9 mitting a petition to the Administrator.

10 “(2) *CONTENTS.*—

11 “(A) *IN GENERAL.*—The Administrator  
12 shall register and include on the Registry all  
13 sites meeting the criteria established under sub-  
14 section (b).

15 “(B) *QUANTITY OF RECOVERABLE WASTE*  
16 *ENERGY.*—The Administrator shall—

17 “(i) calculate the total quantities of po-  
18 tentially recoverable waste energy from  
19 sources at the sites, nationally and by  
20 State; and

21 “(ii) make public—

22 “(I) the total quantities described  
23 in clause (i); and

24 “(II) information on the criteria  
25 pollutant and greenhouse gas emissions

1                   *savings that might be achieved with re-*  
2                   *covery of the waste energy from all*  
3                   *sources and sites listed on the Registry.*

4                   “(3) *AVAILABILITY OF INFORMATION.*—

5                   “(A) *IN GENERAL.*—*The Administrator*  
6                   *shall notify owners or operators of recoverable*  
7                   *waste energy sources and sites listed on the Reg-*  
8                   *istry prior to publishing the listing.*

9                   “(B) *DETAILED QUANTITATIVE INFORMA-*  
10                  *TION.*—

11                  “(i) *IN GENERAL.*—*Except as provided*  
12                  *in clause (ii), the owner or operator of a*  
13                  *source at a site may elect to have detailed*  
14                  *quantitative information concerning the site*  
15                  *not made public by notifying the Adminis-*  
16                  *trator of the election.*

17                  “(ii) *LIMITED AVAILABILITY.*—*The in-*  
18                  *formation shall be made available to—*

19                         “(I) *the applicable State energy*  
20                         *office; and*

21                         “(II) *any utility requested to sup-*  
22                         *port recovery of waste energy from the*  
23                         *source pursuant to the incentives pro-*  
24                         *vided under section 374.*

1                   “(iii) *STATE TOTALS.—Information*  
 2                   *concerning the site shall be included in the*  
 3                   *total quantity of recoverable waste energy*  
 4                   *for a State unless there are fewer than 3*  
 5                   *sites in the State.*

6                   “(4) *REMOVAL OF PROJECTS FROM REGISTRY.—*

7                   “(A) *IN GENERAL.—Subject to subpara-*  
 8                   *graph (B), as a project achieves successful recov-*  
 9                   *ery of waste energy, the Administrator shall—*

10                   “(i) *remove the related sites or sources*  
 11                   *from the Registry; and*

12                   “(ii) *designate the removed projects as*  
 13                   *eligible for incentives under section 374.*

14                   “(B) *LIMITATION.—No project shall be re-*  
 15                   *moved from the Registry without the consent of*  
 16                   *the owner or operator of the project if—*

17                   “(i) *the owner or operator has sub-*  
 18                   *mitted a petition under section 374; and*

19                   “(ii) *the petition has not been acted on*  
 20                   *or denied.*

21                   “(5) *INELIGIBILITY OF CERTAIN SOURCES.—The*  
 22                   *Administrator shall not list any source constructed*  
 23                   *after the date of the enactment of the Energy Inde-*  
 24                   *pendence and Security Act of 2007 on the Registry if*  
 25                   *the Administrator determines that the source—*

1           “(A) was developed for the primary purpose  
2           of making sales of excess electric power under the  
3           regulatory provisions of this part; or

4           “(B) does not capture at least 60 percent of  
5           the total energy value of the fuels used (on a  
6           higher-heating-value basis) in the form of useful  
7           thermal energy, electricity, mechanical energy,  
8           chemical output, or any combination thereof.

9           “(e) SELF-CERTIFICATION.—

10           “(1) IN GENERAL.—Subject to any procedures  
11           that are established by the Administrator, an owner,  
12           operator, or third-party developer of a recoverable  
13           waste energy project that qualifies under standards  
14           established by the Administrator may self-certify the  
15           sites or sources of the owner, operator, or developer to  
16           the Administrator for inclusion in the Registry.

17           “(2) REVIEW AND APPROVAL.—To prevent a  
18           fraudulent listing, a site or source shall be included  
19           on the Registry only if the Administrator reviews and  
20           approves the self-certification.

21           “(f) NEW FACILITIES.—As a new energy-consuming  
22           industrial facility is developed after the date of enactment  
23           of the Energy Independence and Security Act of 2007, to  
24           the extent the facility may constitute a site with recoverable  
25           waste energy that may qualify for inclusion on the Reg-

1 *istry, the Administrator may elect to include the facility*  
 2 *on the Registry, at the request of the owner, operator, or*  
 3 *developer of the facility, on a conditional basis with the*  
 4 *site to be removed from the Registry if the development*  
 5 *ceases or the site fails to qualify for listing under this part.*

6       “(g) *OPTIMUM MEANS OF RECOVERY.*—*For each site*  
 7 *listed in the Registry, at the request of the owner or operator*  
 8 *of the site, the Administrator shall offer, in cooperation with*  
 9 *Clean Energy Application Centers operated by the Sec-*  
 10 *retary of Energy, suggestions for optimum means of recov-*  
 11 *ery of value from waste energy stream in the form of elec-*  
 12 *tricity, useful thermal energy, or other energy-related prod-*  
 13 *ucts.*

14       “(h) *REVISION.*—*Each annual report of a State under*  
 15 *section 548(a) of the National Energy Conservation Policy*  
 16 *Act (42 U.S.C. 8258(a)) shall include the results of the sur-*  
 17 *vey for the State under this section.*

18       “(i) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 19 *authorized to be appropriated to—*

20               “(1) *the Administrator to create and maintain*  
 21 *the Registry and services authorized by this section,*  
 22 *\$1,000,000 for each of fiscal years 2008 through 2012;*  
 23 *and*

24               “(2) *the Secretary—*

1           “(A) to assist site or source owners and op-  
 2           erators in determining the feasibility of projects  
 3           authorized by this section, \$2,000,000 for each of  
 4           fiscal years 2008 through 2012; and

5           “(B) to provide funding for State energy of-  
 6           fice functions under this section, \$5,000,000.

7   **“SEC. 373. WASTE ENERGY RECOVERY INCENTIVE GRANT**  
 8           **PROGRAM.**

9           “(a) *ESTABLISHMENT.*—The Secretary shall establish  
 10          in the Department of Energy a waste energy recovery incen-  
 11          tive grant program to provide incentive grants to—

12           “(1) owners and operators of projects that suc-  
 13          cessfully produce electricity or incremental useful  
 14          thermal energy from waste energy recovery;

15           “(2) utilities purchasing or distributing the elec-  
 16          tricity; and

17           “(3) States that have achieved 80 percent or  
 18          more of recoverable waste heat recovery opportunities.

19          “(b) *GRANTS TO PROJECTS AND UTILITIES.*—

20           “(1) *IN GENERAL.*—The Secretary shall make  
 21          grants under this section—

22           “(A) to the owners or operators of waste en-  
 23          ergy recovery projects; and

24           “(B) in the case of excess power purchased  
 25          or transmitted by a electric utility, to the utility.



1           “(2) *PROOF.*—*Grants may only be made under*  
 2           *this section on receipt of proof of waste energy recov-*  
 3           *ery or excess electricity generation, or both, from the*  
 4           *project in a form prescribed by the Secretary.*

5           “(3) *EXCESS ELECTRIC ENERGY.*—

6                   “(A) *IN GENERAL.*—*In the case of waste en-*  
 7                   *ergy recovery, a grant under this section shall be*  
 8                   *made at the rate of \$10 per megawatt hour of*  
 9                   *documented electricity produced from recoverable*  
 10                  *waste energy (or by prevention of waste energy*  
 11                  *in the case of a new facility) by the project dur-*  
 12                  *ing the first 3 calendar years of production, be-*  
 13                  *ginning on or after the date of enactment of the*  
 14                  *Energy Independence and Security Act of 2007.*

15                  “(B) *UTILITIES.*—*If the project produces*  
 16                  *net excess power and an electric utility pur-*  
 17                  *chases or transmits the excess power, 50 percent*  
 18                  *of so much of the grant as is attributable to the*  
 19                  *net excess power shall be paid to the electric util-*  
 20                  *ity purchasing or transporting the net excess*  
 21                  *power.*

22                  “(4) *USEFUL THERMAL ENERGY.*—*In the case of*  
 23                  *waste energy recovery that produces useful thermal*  
 24                  *energy that is used for a purpose different from that*  
 25                  *for which the project is principally designed, a grant*

1        *under this section shall be made to the owner or oper-*  
 2        *ator of the waste energy recovery project at the rate*  
 3        *of \$10 for each 3,412,000 Btus of the excess thermal*  
 4        *energy used for the different purpose.*

5        “(c) *GRANTS TO STATES.*—*In the case of any State*  
 6        *that has achieved 80 percent or more of waste heat recovery*  
 7        *opportunities identified by the Secretary under this part,*  
 8        *the Administrator shall make a 1-time grant to the State*  
 9        *in an amount of not more than \$1,000 per megawatt of*  
 10       *waste-heat capacity recovered (or a thermal equivalent) to*  
 11       *support State-level programs to identify and achieve addi-*  
 12       *tional energy efficiency.*

13       “(d) *ELIGIBILITY.*—*The Secretary shall—*

14                “(1) *establish rules and guidelines to establish*  
 15        *eligibility for grants under subsection (b);*

16                “(2) *publicize the availability of the grant pro-*  
 17        *gram known to owners or operators of recoverable*  
 18        *waste energy sources and sites listed on the Registry;*  
 19        *and*

20                “(3) *award grants under the program on the*  
 21        *basis of the merits of each project in recovering or*  
 22        *preventing waste energy throughout the United States*  
 23        *on an impartial, objective, and not unduly discrimi-*  
 24        *natory basis.*

1       “(e) *LIMITATION.*—*The Secretary shall not award*  
 2 *grants to any person for a combined heat and power project*  
 3 *or a waste heat recovery project that qualifies for specific*  
 4 *Federal tax incentives for combined heat and power or for*  
 5 *waste heat recovery.*

6       “(f) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 7 *authorized to be appropriated to the Secretary—*

8               “(1) *to make grants to projects and utilities*  
 9 *under subsection (b)—*

10                   “(A) *\$100,000,000 for fiscal year 2008 and*  
 11 *\$200,000,000 for each of fiscal years 2009*  
 12 *through 2012; and*

13                   “(B) *such additional amounts for fiscal*  
 14 *year 2008 and each fiscal year thereafter as may*  
 15 *be necessary for administration of the waste en-*  
 16 *ergy recovery incentive grant program; and*

17               “(2) *to make grants to States under subsection*  
 18 *(b), \$10,000,000 for each of fiscal years 2008 through*  
 19 *2012, to remain available until expended.*

20       **“SEC. 374. ADDITIONAL INCENTIVES FOR RECOVERY, USE,**  
 21 **AND PREVENTION OF INDUSTRIAL WASTE EN-**  
 22 **ERGY.**

23       “(a) *CONSIDERATION OF STANDARD.*—

24               “(1) *IN GENERAL.*—*Not later than 180 days*  
 25 *after the receipt by a State regulatory authority (with*

1       *respect to each electric utility for which the authority*  
 2       *has ratemaking authority), or nonregulated electric*  
 3       *utility, of a request from a project sponsor or owner*  
 4       *or operator, the State regulatory authority or non-*  
 5       *regulated electric utility shall—*

6               “(A) *provide public notice and conduct a*  
 7               *hearing respecting the standard established by*  
 8               *subsection (b); and*

9               “(B) *on the basis of the hearing, consider*  
 10              *and make a determination whether or not it is*  
 11              *appropriate to implement the standard to carry*  
 12              *out the purposes of this part.*

13              “(2) *RELATIONSHIP TO STATE LAW.—For pur-*  
 14              *poses of any determination under paragraph (1) and*  
 15              *any review of the determination in any court, the*  
 16              *purposes of this section supplement otherwise applica-*  
 17              *ble State law.*

18              “(3) *NONADOPTION OF STANDARD.—Nothing in*  
 19              *this part prohibits any State regulatory authority or*  
 20              *nonregulated electric utility from making any deter-*  
 21              *mination that it is not appropriate to adopt any*  
 22              *standard described in paragraph (1), pursuant to au-*  
 23              *thority under otherwise applicable State law.*

24              “(b) *STANDARD FOR SALES OF EXCESS POWER.—For*  
 25              *purposes of this section, the standard referred to in sub-*

1 *section (a) shall provide that an owner or operator of a*  
 2 *waste energy recovery project identified on the Registry that*  
 3 *generates net excess power shall be eligible to benefit from*  
 4 *at least 1 of the options described in subsection (c) for dis-*  
 5 *posal of the net excess power in accordance with the rate*  
 6 *conditions and limitations described in subsection (d).*

7       “(c) *OPTIONS.—The options referred to in subsection*  
 8 *(b) are as follows:*

9               “(1) *SALE OF NET EXCESS POWER TO UTILITY.—*  
 10       *The electric utility shall purchase the net excess power*  
 11       *from the owner or operator of the eligible waste en-*  
 12       *ergy recovery project during the operation of the*  
 13       *project under a contract entered into for that purpose.*

14               “(2) *TRANSPORT BY UTILITY FOR DIRECT SALE*  
 15       *TO THIRD PARTY.—The electric utility shall transmit*  
 16       *the net excess power on behalf of the project owner or*  
 17       *operator to up to 3 separate locations on the system*  
 18       *of the utility for direct sale by the owner or operator*  
 19       *to third parties at those locations.*

20               “(3) *TRANSPORT OVER PRIVATE TRANSMISSION*  
 21       *LINES.—The State and the electric utility shall per-*  
 22       *mit, and shall waive or modify such laws as would*  
 23       *otherwise prohibit, the construction and operation of*  
 24       *private electric wires constructed, owned, and oper-*  
 25       *ated by the project owner or operator, to transport the*

1     *power to up to 3 purchasers within a 3-mile radius*  
 2     *of the project, allowing the wires to use or cross public*  
 3     *rights-of-way, without subjecting the project to regula-*  
 4     *tion as a public utility, and according the wires the*  
 5     *same treatment for safety, zoning, land use, and other*  
 6     *legal privileges as apply or would apply to the wires*  
 7     *of the utility, except that—*

8             *“(A) there shall be no grant of any power*  
 9             *of eminent domain to take or cross private prop-*  
 10            *erty for the wires; and*

11            *“(B) the wires shall be physically segregated*  
 12            *and not interconnected with any portion of the*  
 13            *system of the utility, except on the customer side*  
 14            *of the revenue meter of the utility and in a man-*  
 15            *ner that precludes any possible export of the elec-*  
 16            *tricity onto the utility system, or disruption of*  
 17            *the system.*

18            *“(4) AGREED ON ALTERNATIVES.—The utility*  
 19            *and the owner or operator of the project may reach*  
 20            *agreement on any alternate arrangement and pay-*  
 21            *ments or rates associated with the arrangement that*  
 22            *is mutually satisfactory and in accord with State*  
 23            *law.*

24            *“(d) RATE CONDITIONS AND CRITERIA.—*

25            *“(1) DEFINITIONS.—In this subsection:*

1           “(A) *PER UNIT DISTRIBUTION COSTS.*—*The*  
 2           *term ‘per unit distribution costs’ means (in kilo-*  
 3           *watt hours) the quotient obtained by dividing—*

4                   “(i) *the depreciated book-value dis-*  
 5                   *tribution system costs of a utility; by*

6                   “(ii) *the volume of utility electricity*  
 7                   *sales or transmission during the previous*  
 8                   *year at the distribution level.*

9           “(B) *PER UNIT DISTRIBUTION MARGIN.*—  
 10          *The term ‘per unit distribution margin’*  
 11          *means—*

12                   “(i) *in the case of a State-regulated*  
 13                   *electric utility, a per-unit gross pretax prof-*  
 14                   *it equal to the product obtained by*  
 15                   *multiplying—*

16                           “(I) *the State-approved percentage*  
 17                           *rate of return for the utility for dis-*  
 18                           *tribution system assets; by*

19                           “(II) *the per unit distribution*  
 20                           *costs; and*

21                           “(ii) *in the case of a nonregulated util-*  
 22                           *ity, a per unit contribution to net revenues*  
 23                           *determined multiplying—*

1                   “(I) the percentage (but not less  
2                   than 10 percent) obtained by  
3                   dividing—

4                   “(aa) the amount of any net  
5                   revenue payment or contribution  
6                   to the owners or subscribers of the  
7                   nonregulated utility during the  
8                   prior year; by

9                   “(bb) the gross revenues of  
10                  the utility during the prior year  
11                  to obtain a percentage; by

12                  “(II) the per unit distribution  
13                  costs.

14                  “(C) *PER UNIT TRANSMISSION COSTS.*—The  
15                  term ‘per unit transmission costs’ means the  
16                  total cost of those transmission services pur-  
17                  chased or provided by a utility on a per-kilo-  
18                  watt-hour basis as included in the retail rate of  
19                  the utility.

20                  “(2) *OPTIONS.*—The options described in para-  
21                  graphs (1) and (2) in subsection (c) shall be offered  
22                  under purchase and transport rate conditions that re-  
23                  flect the rate components defined under paragraph (1)  
24                  as applicable under the circumstances described in  
25                  paragraph (3).



1 “(3) *APPLICABLE RATES.*—

2 “(A) *RATES APPLICABLE TO SALE OF NET*  
 3 *EXCESS POWER.*—

4 “(i) *IN GENERAL.*—*Sales made by a*  
 5 *project owner or operator of a facility under*  
 6 *the option described in subsection (c)(1)*  
 7 *shall be paid for on a per kilowatt hour*  
 8 *basis that shall equal the full undiscounted*  
 9 *retail rate paid to the utility for power pur-*  
 10 *chased by the facility minus per unit dis-*  
 11 *tribution costs, that applies to the type of*  
 12 *utility purchasing the power.*

13 “(ii) *VOLTAGES EXCEEDING 25 KILO-*  
 14 *VOLTS.*—*If the net excess power is made*  
 15 *available for purchase at voltages that must*  
 16 *be transformed to or from voltages exceeding*  
 17 *25 kilovolts to be available for resale by the*  
 18 *utility, the purchase price shall further be*  
 19 *reduced by per unit transmission costs.*

20 “(B) *RATES APPLICABLE TO TRANSPORT BY*  
 21 *UTILITY FOR DIRECT SALE TO THIRD PARTIES.*—

22 “(i) *IN GENERAL.*—*Transportation by*  
 23 *utilities of power on behalf of the owner or*  
 24 *operator of a project under the option de-*  
 25 *scribed in subsection (c)(2) shall incur a*

1           *transportation rate that shall equal the per*  
 2           *unit distribution costs and per unit dis-*  
 3           *tribution margin, that applies to the type of*  
 4           *utility transporting the power.*

5           “(ii) *VOLTAGES EXCEEDING 25 KILO-*  
 6           *VOLTS.—If the net excess power is made*  
 7           *available for transportation at voltages that*  
 8           *must be transformed to or from voltages ex-*  
 9           *ceeding 25 kilovolts to be transported to the*  
 10           *designated third-party purchasers, the*  
 11           *transport rate shall further be increased by*  
 12           *per unit transmission costs.*

13           “(iii) *STATES WITH COMPETITIVE RE-*  
 14           *TAIL MARKETS FOR ELECTRICITY.—In a*  
 15           *State with a competitive retail market for*  
 16           *electricity, the applicable transportation*  
 17           *rate for similar transportation shall be ap-*  
 18           *plied in lieu of any rate calculated under*  
 19           *this paragraph.*

20           “(4) *LIMITATIONS.—*

21           “(A) *IN GENERAL.—Any rate established for*  
 22           *sale or transportation under this section shall—*

23           “(i) *be modified over time with*  
 24           *changes in the underlying costs or rates of*  
 25           *the electric utility; and*

1                   “(ii) reflect the same time-sensitivity  
2                   and billing periods as are established in the  
3                   retail sales or transportation rates offered  
4                   by the utility.

5                   “(B) *LIMITATION.*—No utility shall be re-  
6                   quired to purchase or transport a quantity of net  
7                   excess power under this section that exceeds the  
8                   available capacity of the wires, meter, or other  
9                   equipment of the electric utility serving the site  
10                  unless the owner or operator of the project agrees  
11                  to pay necessary and reasonable upgrade costs.

12                  “(e) *PROCEDURAL REQUIREMENTS FOR CONSIDER-*  
13 *ATION AND DETERMINATION.*—

14                   “(1) *PUBLIC NOTICE AND HEARING.*—

15                   “(A) *IN GENERAL.*—The consideration re-  
16                   ferred to in subsection (a) shall be made after  
17                   public notice and hearing.

18                   “(B) *ADMINISTRATION.*—The determination  
19                   referred to in subsection (a) shall be—

20                   “(i) in writing;

21                   “(ii) based on findings included in the  
22                   determination and on the evidence presented  
23                   at the hearing; and

24                   “(iii) available to the public.

1           “(2) *INTERVENTION BY ADMINISTRATOR.*—*The*  
 2           *Administrator may intervene as a matter of right in*  
 3           *a proceeding conducted under this section—*

4                   “(A) *to calculate—*

5                           “(i) *the energy and emissions likely to*  
 6                           *be saved by electing to adopt 1 or more of*  
 7                           *the options; and*

8                           “(ii) *the costs and benefits to rate-*  
 9                           *payers and the utility; and*

10                   “(B) *to advocate for the waste-energy recov-*  
 11                   *ery opportunity.*

12           “(3) *PROCEDURES.*—

13                   “(A) *IN GENERAL.*—*Except as otherwise*  
 14                   *provided in paragraphs (1) and (2), the proce-*  
 15                   *dures for the consideration and determination*  
 16                   *referred to in subsection (a) shall be the proce-*  
 17                   *dures established by the State regulatory author-*  
 18                   *ity or the nonregulated electric utility.*

19                   “(B) *MULTIPLE PROJECTS.*—*If there is*  
 20                   *more than 1 project seeking consideration simul-*  
 21                   *taneously in connection with the same utility,*  
 22                   *the proceeding may encompass all such projects,*  
 23                   *if full attention is paid to individual cir-*  
 24                   *cumstances and merits and an individual judg-*  
 25                   *ment is reached with respect to each project.*

1 “(f) *IMPLEMENTATION.*—

2 “(1) *IN GENERAL.*—*The State regulatory author-*  
 3 *ity (with respect to each electric utility for which the*  
 4 *authority has ratemaking authority) or nonregulated*  
 5 *electric utility may, to the extent consistent with oth-*  
 6 *erwise applicable State law—*

7 “(A) *implement the standard determined*  
 8 *under this section; or*

9 “(B) *decline to implement any such stand-*  
 10 *ard.*

11 “(2) *NONIMPLEMENTATION OF STANDARD.*—

12 “(A) *IN GENERAL.*—*If a State regulatory*  
 13 *authority (with respect to each electric utility for*  
 14 *which the authority has ratemaking authority)*  
 15 *or nonregulated electric utility declines to imple-*  
 16 *ment any standard established by this section,*  
 17 *the authority or nonregulated electric utility*  
 18 *shall state in writing the reasons for declining to*  
 19 *implement the standard.*

20 “(B) *AVAILABILITY TO PUBLIC.*—*The state-*  
 21 *ment of reasons shall be available to the public.*

22 “(C) *ANNUAL REPORT.*—*The Administrator*  
 23 *shall include in an annual report submitted to*  
 24 *Congress a description of the lost opportunities*  
 25 *for waste-heat recovery from the project described*

1           *in subparagraph (A), specifically identifying the*  
 2           *utility and stating the quantity of lost energy*  
 3           *and emissions savings calculated.*

4           “(D) *NEW PETITION.*—*If a State regulatory*  
 5           *authority (with respect to each electric utility for*  
 6           *which the authority has ratemaking authority)*  
 7           *or nonregulated electric utility declines to imple-*  
 8           *ment the standard established by this section, the*  
 9           *project sponsor may submit a new petition*  
 10           *under this section with respect to the project at*  
 11           *any time after the date that is 2 years after the*  
 12           *date on which the State regulatory authority or*  
 13           *nonregulated utility declined to implement the*  
 14           *standard.*

15   **“SEC. 375. CLEAN ENERGY APPLICATION CENTERS.**

16           “(a) *RENAMING.*—

17           “(1) *IN GENERAL.*—*The Combined Heat and*  
 18           *Power Application Centers of the Department of En-*  
 19           *ergy are redesignated as Clean Energy Application*  
 20           *Centers.*

21           “(2) *REFERENCES.*—*Any reference in any law,*  
 22           *rule, regulation, or publication to a Combined Heat*  
 23           *and Power Application Center shall be treated as a*  
 24           *reference to a Clean Energy Application Center.*

25           “(b) *RELOCATION.*—

1           “(1) *IN GENERAL.*—*In order to better coordinate*  
 2           *efforts with the separate Industrial Assessment Cen-*  
 3           *ters and to ensure that the energy efficiency and,*  
 4           *when applicable, the renewable nature of deploying*  
 5           *mature clean energy technology is fully accounted for,*  
 6           *the Secretary shall relocate the administration of the*  
 7           *Clean Energy Application Centers to the Office of En-*  
 8           *ergy Efficiency and Renewable Energy within the De-*  
 9           *partment of Energy.*

10           “(2) *OFFICE OF ELECTRICITY DELIVERY AND EN-*  
 11           *ERGY RELIABILITY.*—*The Office of Electricity Deliv-*  
 12           *ery and Energy Reliability shall—*

13                   “(A) *continue to perform work on the role*  
 14                   *of technology described in paragraph (1) in sup-*  
 15                   *port of the grid and the reliability and security*  
 16                   *of the technology; and*

17                   “(B) *shall assist the Clean Energy Applica-*  
 18                   *tion Centers in the work of the Centers with re-*  
 19                   *gard to the grid and with electric utilities.*

20           “(c) *GRANTS.*—

21           “(1) *IN GENERAL.*—*The Secretary shall make*  
 22           *grants to universities, research centers, and other ap-*  
 23           *propriate institutions to ensure the continued oper-*  
 24           *ations and effectiveness of 8 Regional Clean Energy*  
 25           *Application Centers in each of the following regions*

1       *(as designated for such purposes as of the date of the*  
 2       *enactment of the Energy Independence and Security*  
 3       *Act of 2007):*

4               “(A) *Gulf Coast.*

5               “(B) *Intermountain.*

6               “(C) *Mid-Atlantic.*

7               “(D) *Midwest.*

8               “(E) *Northeast.*

9               “(F) *Northwest.*

10              “(G) *Pacific.*

11              “(H) *Southeast.*

12              “(2) *ESTABLISHMENT OF GOALS AND COMPLI-*  
 13       *ANCE.—In making grants under this subsection, the*  
 14       *Secretary shall ensure that sufficient goals are estab-*  
 15       *lished and met by each Center throughout the pro-*  
 16       *gram duration concerning outreach and technology*  
 17       *deployment.*

18              “(d) *ACTIVITIES.—*

19              “(1) *IN GENERAL.—Each Clean Energy Applica-*  
 20       *tion Center shall—*

21                   “(A) *operate a program to encourage de-*  
 22       *ployment of clean energy technologies through*  
 23       *education and outreach to building and indus-*  
 24       *trial professionals; and other individuals and or-*



1        *ganizations with an interest in efficient energy*  
2        *use; and*

3                *“(B) provide project specific support to*  
4        *building and industrial professionals through as-*  
5        *sessments and advisory activities.*

6                *“(2) TYPES OF ACTIVITIES.—Funds made avail-*  
7        *able under this section may be used—*

8                *“(A) to develop and distribute informa-*  
9        *tional materials on clean energy technologies, in-*  
10       *cluding continuation of the 8 websites in exist-*  
11       *ence on the date of enactment of the Energy*  
12       *Independence and Security Act of 2007;*

13               *“(B) to develop and conduct target market*  
14       *workshops, seminars, internet programs, and*  
15       *other activities to educate end users, regulators,*  
16       *and stakeholders in a manner that leads to the*  
17       *deployment of clean energy technologies;*

18               *“(C) to provide or coordinate onsite assess-*  
19       *ments for sites and enterprises that may consider*  
20       *deployment of clean energy technology;*

21               *“(D) to perform market research to identify*  
22       *high profile candidates for clean energy deploy-*  
23       *ment;*

1           “(E) to provide consulting support to sites  
2           considering deployment of clean energy tech-  
3           nologies;

4           “(F) to assist organizations developing  
5           clean energy technologies to overcome barriers to  
6           deployment; and

7           “(G) to assist companies and organizations  
8           with performance evaluations of any clean en-  
9           ergy technology implemented.

10          “(e) DURATION.—

11           “(1) IN GENERAL.—A grant awarded under this  
12          section shall be for a period of 5 years

13           “(2) ANNUAL EVALUATIONS.—Each grant shall  
14          be evaluated annually for the continuation of the  
15          grant based on the activities and results of the grant.

16          “(f) AUTHORIZATION.—There is authorized to be ap-  
17          propriated to carry out this section \$10,000,000 for each  
18          of fiscal years 2008 through 2012.”.

19          (b) TABLE OF CONTENTS.—The table of contents of the  
20          Energy Policy and Conservation Act (42 U.S.C. prec. 6201)  
21          is amended by inserting after the items relating to part D  
22          of title III the following:

“PART E—INDUSTRIAL ENERGY EFFICIENCY

“Sec. 371. Definitions.

“Sec. 372. Survey and Registry.

“Sec. 373. Waste energy recovery incentive grant program.

“Sec. 374. Additional incentives for recovery, utilization and prevention of indus-  
trial waste energy.

“Sec. 375. Clean Energy Application Centers.”.

1 **SEC. 452. ENERGY-INTENSIVE INDUSTRIES PROGRAM.**

2 (a) *DEFINITIONS.—In this section:*

3 (1) *ELIGIBLE ENTITY.—The term “eligible enti-*  
4 *ty” means—*

5 (A) *an energy-intensive industry;*

6 (B) *a national trade association rep-*  
7 *resenting an energy-intensive industry; or*

8 (C) *a person acting on behalf of 1 or more*  
9 *energy-intensive industries or sectors, as deter-*  
10 *mined by the Secretary.*

11 (2) *ENERGY-INTENSIVE INDUSTRY.—The term*  
12 *“energy-intensive industry” means an industry that*  
13 *uses significant quantities of energy as part of its*  
14 *primary economic activities, including—*

15 (A) *information technology, including data*  
16 *centers containing electrical equipment used in*  
17 *processing, storing, and transmitting digital in-*  
18 *formation;*

19 (B) *consumer product manufacturing;*

20 (C) *food processing;*

21 (D) *materials manufacturers, including—*

22 (i) *aluminum;*

23 (ii) *chemicals;*

24 (iii) *forest and paper products;*

25 (iv) *metal casting;*

26 (v) *glass;*

1                   (vi) petroleum refining;

2                   (vii) mining; and

3                   (viii) steel;

4                   (E) other energy-intensive industries, as de-  
5                   termined by the Secretary.

6                   (3) *FEEDSTOCK*.—The term “feedstock” means  
7                   the raw material supplied for use in manufacturing,  
8                   chemical, and biological processes.

9                   (4) *PARTNERSHIP*.—The term “partnership”  
10                  means an energy efficiency partnership established  
11                  under subsection (c)(1)(A).

12                  (5) *PROGRAM*.—The term “program” means the  
13                  energy-intensive industries program established under  
14                  subsection (b).

15                  (b) *ESTABLISHMENT OF PROGRAM*.—The Secretary  
16                  shall establish a program under which the Secretary, in co-  
17                  operation with energy-intensive industries and national in-  
18                  dustry trade associations representing the energy-intensive  
19                  industries, shall support, research, develop, and promote the  
20                  use of new materials processes, technologies, and techniques  
21                  to optimize energy efficiency and the economic competitive-  
22                  ness of the United States’ industrial and commercial sec-  
23                  tors.

24                  (c) *PARTNERSHIPS*.—

1           (1) *IN GENERAL.*—As part of the program, the  
2       *Secretary shall establish energy efficiency partner-*  
3       *ships between the Secretary and eligible entities to*  
4       *conduct research on, develop, and demonstrate new*  
5       *processes, technologies, and operating practices and*  
6       *techniques to significantly improve the energy effi-*  
7       *ciency of equipment and processes used by energy-in-*  
8       *tensive industries, including the conduct of activities*  
9       *to—*

10                (A) *increase the energy efficiency of indus-*  
11       *trial processes and facilities;*

12                (B) *research, develop, and demonstrate ad-*  
13       *vanced technologies capable of energy intensity*  
14       *reductions and increased environmental perform-*  
15       *ance; and*

16                (C) *promote the use of the processes, tech-*  
17       *nologies, and techniques described in subpara-*  
18       *graphs (A) and (B).*

19           (2) *ELIGIBLE ACTIVITIES.*—Partnership activi-  
20       *ties eligible for funding under this subsection*  
21       *include—*

22                (A) *feedstock and recycling research, devel-*  
23       *opment, and demonstration activities to identify*  
24       *and promote—*

1                   (i) opportunities for meeting industry  
 2                   feedstock requirements with more energy ef-  
 3                   ficient and flexible sources of feedstock or  
 4                   energy supply;

5                   (ii) strategies to develop and deploy  
 6                   technologies that improve the quality and  
 7                   quantity of feedstocks recovered from process  
 8                   and waste streams; and

9                   (iii) other methods using recycling,  
 10                  reuse, and improved industrial materials;

11                (B) research to develop and demonstrate  
 12                technologies and processes that utilize alternative  
 13                energy sources to supply heat, power, and new  
 14                feedstocks for energy-intensive industries;

15                (C) research to achieve energy efficiency in  
 16                steam, power, control system, and process heat  
 17                technologies, and in other manufacturing proc-  
 18                esses; and

19                (D) industrial and commercial energy effi-  
 20                ciency and sustainability assessments to—

21                   (i) assist individual industrial and  
 22                   commercial sectors in developing tools, tech-  
 23                   niques, and methodologies to assess—

24                   (I) the unique processes and fa-  
 25                   cilities of the sectors;

1                   (II) the energy utilization require-  
2                   ments of the sectors; and

3                   (III) the application of new, more  
4                   energy efficient technologies; and

5                   (ii) conduct energy savings assess-  
6                   ments;

7                   (E) the incorporation of technologies and  
8                   innovations that would significantly improve the  
9                   energy efficiency and utilization of energy-inten-  
10                  sive commercial applications; and

11                  (F) any other activities that the Secretary  
12                  determines to be appropriate.

13                  (3) PROPOSALS.—

14                  (A) IN GENERAL.—To be eligible for fund-  
15                  ing under this subsection, a partnership shall  
16                  submit to the Secretary a proposal that describes  
17                  the proposed research, development, or dem-  
18                  onstration activity to be conducted by the part-  
19                  nership.

20                  (B) REVIEW.—After reviewing the scientific,  
21                  technical, and commercial merit of a proposals  
22                  submitted under subparagraph (A), the Secretary  
23                  shall approve or disapprove the proposal.

1                   (C) *COMPETITIVE AWARDS.*—*The provision*  
 2                   *of funding under this subsection shall be on a*  
 3                   *competitive basis.*

4                   (4) *COST-SHARING REQUIREMENT.*—*In carrying*  
 5                   *out this section, the Secretary shall require cost shar-*  
 6                   *ing in accordance with section 988 of the Energy Pol-*  
 7                   *icy Act of 2005 (42 U.S.C. 16352).*

8                   (d) *GRANTS.*—*The Secretary may award competitive*  
 9                   *grants for innovative technology research, development and*  
 10                  *demonstrations to universities, individual inventors, and*  
 11                  *small companies, based on energy savings potential, com-*  
 12                  *mercial viability, and technical merit.*

13                  (e) *INSTITUTION OF HIGHER EDUCATION-BASED IN-*  
 14                  *DUSTRIAL RESEARCH AND ASSESSMENT CENTERS.*—*The*  
 15                  *Secretary shall provide funding to institution of higher edu-*  
 16                  *cation-based industrial research and assessment centers,*  
 17                  *whose purpose shall be—*

18                       (1) *to identify opportunities for optimizing en-*  
 19                       *ergy efficiency and environmental performance;*

20                       (2) *to promote applications of emerging concepts*  
 21                       *and technologies in small and medium-sized manufac-*  
 22                       *turers;*

23                       (3) *to promote research and development for the*  
 24                       *use of alternative energy sources to supply heat,*



1        *power, and new feedstocks for energy-intensive indus-*  
 2        *tries;*

3            *(4) to coordinate with appropriate Federal and*  
 4        *State research offices, and provide a clearinghouse for*  
 5        *industrial process and energy efficiency technical as-*  
 6        *sistance resources; and*

7            *(5) to coordinate with State-accredited technical*  
 8        *training centers and community colleges, while ensur-*  
 9        *ing appropriate services to all regions of the United*  
 10       *States.*

11       *(f) AUTHORIZATION OF APPROPRIATIONS.—*

12            *(1) IN GENERAL.—There are authorized to be ap-*  
 13        *propriated to the Secretary to carry out this section—*

14                    *(A) \$184,000,000 for fiscal year 2008;*

15                    *(B) \$190,000,000 for fiscal year 2009;*

16                    *(C) \$196,000,000 for fiscal year 2010;*

17                    *(D) \$202,000,000 for fiscal year 2011;*

18                    *(E) \$208,000,000 for fiscal year 2012; and*

19                    *(F) such sums as are necessary for fiscal*  
 20        *year 2013 and each fiscal year thereafter.*

21            *(2) PARTNERSHIP ACTIVITIES.—Of the amounts*  
 22        *made available under paragraph (1), not less than 50*  
 23        *percent shall be used to pay the Federal share of part-*  
 24        *nership activities under subsection (c).*

1           (3) *COORDINATION AND NONDUPLICATION.*—*The*  
 2           *Secretary shall coordinate efforts under this section*  
 3           *with other programs of the Department and other*  
 4           *Federal agencies to avoid duplication of effort.*

5 **SEC. 453. ENERGY EFFICIENCY FOR DATA CENTER BUILD-**  
 6                                   **INGS.**

7           (a) *DEFINITIONS.*—*In this section:*

8                   (1) *DATA CENTER.*—*The term “data center”*  
 9                   *means any facility that primarily contains electronic*  
 10                   *equipment used to process, store, and transmit digital*  
 11                   *information, which may be—*

12                               (A) *a free-standing structure; or*

13                               (B) *a facility within a larger structure,*  
 14                   *that uses environmental control equipment to*  
 15                   *maintain the proper conditions for the operation*  
 16                   *of electronic equipment.*

17                   (2) *DATA CENTER OPERATOR.*—*The term “data*  
 18                   *center operator” means any person or government en-*  
 19                   *tity that builds or operates a data center or purchases*  
 20                   *data center services, equipment, and facilities.*

21           (b) *VOLUNTARY NATIONAL INFORMATION PROGRAM.*—

22                   (1) *IN GENERAL.*—*Not later than 90 days after*  
 23                   *the date of enactment of this Act, the Secretary and*  
 24                   *the Administrator of the Environmental Protection*  
 25                   *Agency shall, after consulting with information tech-*

1        *nology industry and other interested parties, initiate*  
2        *a voluntary national information program for those*  
3        *types of data centers and data center equipment and*  
4        *facilities that are widely used and for which there is*  
5        *a potential for significant data center energy savings*  
6        *as a result of the program.*

7            (2) *REQUIREMENTS.—The program described in*  
8        *paragraph (1) shall—*

9            (A) *address data center efficiency holis-*  
10        *tically, reflecting the total energy consumption of*  
11        *data centers as whole systems, including both*  
12        *equipment and facilities;*

13          (B) *consider prior work and studies under-*  
14        *taken in this area, including by the Environ-*  
15        *mental Protection Agency and the Department of*  
16        *Energy;*

17          (C) *consistent with the objectives described*  
18        *in paragraph (1), determine the type of data*  
19        *center and data center equipment and facilities*  
20        *to be covered under the program;*

21          (D) *produce specifications, measurements,*  
22        *best practices, and benchmarks that will enable*  
23        *data center operators to make more informed de-*  
24        *cisions about the energy efficiency and costs of*  
25        *data centers, and that take into account—*

1                   (i) the performance and use of servers,  
2                   data storage devices, and other information  
3                   technology equipment;

4                   (ii) the efficiency of heating, ventila-  
5                   tion, and air conditioning, cooling, and  
6                   power conditioning systems, provided that  
7                   no modification shall be required of a  
8                   standard then in effect under the Energy  
9                   Policy and Conservation Act (42 U.S.C.  
10                  6201 et seq.) for any covered heating, ven-  
11                  tilation, air-conditioning, cooling or power-  
12                  conditioning product;

13                  (iii) energy savings from the adoption  
14                  of software and data management tech-  
15                  niques; and

16                  (iv) other factors determined by the or-  
17                  ganization described in subsection (c);

18                  (E) allow for creation of separate specifica-  
19                  tions, measurements, and benchmarks based on  
20                  data center size and function, as well as other  
21                  appropriate characteristics;

22                  (F) advance the design and implementation  
23                  of efficiency technologies to the maximum extent  
24                  economically practical;

1           (G) provide to data center operators in the  
 2           private sector and the Federal Government infor-  
 3           mation about best practices and purchasing deci-  
 4           sions that reduce the energy consumption of data  
 5           centers; and

6           (H) publish the information described in  
 7           subparagraph (G), which may be disseminated  
 8           through catalogs, trade publications, the Inter-  
 9           net, or other mechanisms, that will allow data  
 10          center operators to assess the energy consumption  
 11          and potential cost savings of alternative data  
 12          centers and data center equipment and facilities.

13          (3) *PROCEDURES.*—The program described in  
 14          paragraph (1) shall be developed in consultation with  
 15          and coordinated by the organization described in sub-  
 16          section (c) according to commonly accepted proce-  
 17          dures for the development of specifications, measure-  
 18          ments, and benchmarks.

19          (c) *DATA CENTER EFFICIENCY ORGANIZATION.*—

20               (1) *IN GENERAL.*—After the establishment of the  
 21               program described in subsection (b), the Secretary  
 22               and the Administrator shall jointly designate an in-  
 23               formation technology industry organization to consult  
 24               with and to coordinate the program.

1           (2) *REQUIREMENTS.—The organization des-*  
2           *ignated under paragraph (1), whether preexisting or*  
3           *formed specifically for the purposes of subsection (b),*  
4           *shall—*

5                   (A) *consist of interested parties that have*  
6                   *expertise in energy efficiency and in the develop-*  
7                   *ment, operation, and functionality of computer*  
8                   *data centers, information technology equipment,*  
9                   *and software, as well as representatives of hard-*  
10                  *ware manufacturers, data center operators, and*  
11                  *facility managers;*

12                  (B) *obtain and address input from Depart-*  
13                  *ment of Energy National Laboratories or any*  
14                  *college, university, research institution, industry*  
15                  *association, company, or public interest group*  
16                  *with applicable expertise in any of the areas list-*  
17                  *ed in paragraph (1);*

18                  (C) *follow commonly accepted procedures*  
19                  *for the development of specifications and accred-*  
20                  *ited standards development processes;*

21                  (D) *have a mission to develop and promote*  
22                  *energy efficiency for data centers and informa-*  
23                  *tion technology; and*

24                  (E) *have the primary responsibility to con-*  
25                  *sult in the development and publishing of the in-*

1           *formation, measurements, and benchmarks de-*  
 2           *scribed in subsection (b) and transmission of the*  
 3           *information to the Secretary and the Adminis-*  
 4           *trator for consideration under subsection (d).*

5           *(d) MEASUREMENTS AND SPECIFICATIONS.—*

6           *(1) IN GENERAL.—The Secretary and the Ad-*  
 7           *ministrator shall consider the specifications, measure-*  
 8           *ments, and benchmarks described in subsection (b) for*  
 9           *use by the Federal Energy Management Program, the*  
 10          *Energy Star Program, and other efficiency programs*  
 11          *of the Department of Energy and Environmental Pro-*  
 12          *tection Agency, respectively.*

13          *(2) REJECTIONS.—If the Secretary or the Ad-*  
 14          *ministrator rejects 1 or more specifications, measure-*  
 15          *ments, or benchmarks described in subsection (b), the*  
 16          *rejection shall be made consistent with section 12(d)*  
 17          *of the National Technology Transfer and Advance-*  
 18          *ment Act of 1995 (15 U.S.C. 272 note; Public Law*  
 19          *104–113).*

20          *(3) DETERMINATION OF IMPRACTICABILITY.—A*  
 21          *determination that a specification, measurement, or*  
 22          *benchmark described in subsection (b) is impractical*  
 23          *may include consideration of the maximum efficiency*  
 24          *that is technologically feasible and economically justi-*  
 25          *fied.*

1       (e) *MONITORING.*—*The Secretary and the Adminis-*  
2 *trator shall—*

3           (1) *monitor and evaluate the efforts to develop*  
4 *the program described in subsection (b); and*

5           (2) *not later than 3 years after the date of enact-*  
6 *ment of this Act, make a determination as to whether*  
7 *the program is consistent with the objectives of sub-*  
8 *section (b).*

9       (f) *ALTERNATIVE SYSTEM.*—*If the Secretary and the*  
10 *Administrator make a determination under subsection (e)*  
11 *that a voluntary national information program for data*  
12 *centers consistent with the objectives of subsection (b) has*  
13 *not been developed, the Secretary and the Administrator*  
14 *shall, after consultation with the National Institute of*  
15 *Standards and Technology and not later than 2 years after*  
16 *the determination, develop and implement the program*  
17 *under subsection (b).*

18       (g) *PROTECTION OF PROPRIETARY INFORMATION.*—  
19 *The Secretary, the Administrator, or the data center effi-*  
20 *ciency organization shall not disclose any proprietary in-*  
21 *formation or trade secrets provided by any individual or*  
22 *company for the purposes of carrying out this section or*  
23 *the program established under this section.*



1                   ***Subtitle E—Healthy High-***  
 2                   ***Performance Schools***

3   ***SEC. 461. HEALTHY HIGH-PERFORMANCE SCHOOLS.***

4           (a) *AMENDMENT.*—*The Toxic Substances Control Act*  
 5   *(15 U.S.C. 2601 et seq.) is amended by adding at the end*  
 6   *the following new title:*

7                   ***“TITLE V—HEALTHY HIGH-***  
 8                   ***PERFORMANCE SCHOOLS***

9   ***“SEC. 501. GRANTS FOR HEALTHY SCHOOL ENVIRONMENTS.***

10          “(a) *IN GENERAL.*—*The Administrator, in consulta-*  
 11   *tion with the Secretary of Education, may provide grants*  
 12   *to States for use in—*

13               “(1) *providing technical assistance for programs*  
 14   *of the Environmental Protection Agency (including*  
 15   *the Tools for Schools Program and the Healthy School*  
 16   *Environmental Assessment Tool) to schools for use in*  
 17   *addressing environmental issues; and*

18               “(2) *development and implementation of State*  
 19   *school environmental health programs that include—*

20                   “(A) *standards for school building design,*  
 21   *construction, and renovation; and*

22                   “(B) *identification of ongoing school build-*  
 23   *ing environmental problems, including contami-*  
 24   *nants, hazardous substances, and pollutant emis-*  
 25   *sions, in the State and recommended solutions to*

1           *address those problems, including assessment of*  
 2           *information on the exposure of children to envi-*  
 3           *ronmental hazards in school facilities.*

4           “(b) *SUNSET.*—*The authority of the Administrator to*  
 5           *carry out this section shall expire 5 years after the date*  
 6           *of enactment of this section.*

7           **“SEC. 502. MODEL GUIDELINES FOR SITING OF SCHOOL FA-**  
 8                                   **CILITIES.**

9           *“Not later than 18 months after the date of enactment*  
 10          *of this section, the Administrator, in consultation with the*  
 11          *Secretary of Education and the Secretary of Health and*  
 12          *Human Services, shall issue voluntary school site selection*  
 13          *guidelines that account for—*

14                 *“(1) the special vulnerability of children to haz-*  
 15                 *ardous substances or pollution exposures in any case*  
 16                 *in which the potential for contamination at a poten-*  
 17                 *tial school site exists;*

18                 *“(2) modes of transportation available to stu-*  
 19                 *dents and staff;*

20                 *“(3) the efficient use of energy; and*

21                 *“(4) the potential use of a school at the site as*  
 22                 *an emergency shelter.*

23           **“SEC. 503. PUBLIC OUTREACH.**

24           “(a) *REPORTS.*—*The Administrator shall publish and*  
 25           *submit to Congress an annual report on all activities car-*

1 ried out under this title, until the expiration of authority  
2 described in section 501(b).

3 “(b) *PUBLIC OUTREACH.*—The Federal Director ap-  
4 pointed under section 436(a) of the Energy Independence  
5 and Security Act of 2007 (in this title referred to as the  
6 ‘Federal Director’) shall ensure, to the maximum extent  
7 practicable, that the public clearinghouse established under  
8 section 423(1) of the Energy Independence and Security Act  
9 of 2007 receives and makes available information on the  
10 exposure of children to environmental hazards in school fa-  
11 cilities, as provided by the Administrator.

12 **“SEC. 504. ENVIRONMENTAL HEALTH PROGRAM.**

13 “(a) *IN GENERAL.*—Not later than 2 years after the  
14 date of enactment of this section, the Administrator, in con-  
15 sultation with the Secretary of Education, the Secretary of  
16 Health and Human Services, and other relevant agencies,  
17 shall issue voluntary guidelines for use by the State in de-  
18 veloping and implementing an environmental health pro-  
19 gram for schools that—

20 “(1) takes into account the status and findings  
21 of Federal initiatives established under this title or  
22 subtitle C of title IV of the Energy Independence and  
23 Security Act of 2007 and other relevant Federal law  
24 with respect to school facilities, including relevant up-

1        *dates on trends in the field, such as the impact of*  
 2        *school facility environments on student and staff—*

3                *“(A) health, safety, and productivity; and*

4                *“(B) disabilities or special needs;*

5                *“(2) takes into account studies using relevant*  
 6        *tools identified or developed in accordance with sec-*  
 7        *tion 492 of the Energy Independence and Security*  
 8        *Act of 2007;*

9                *“(3) takes into account, with respect to school fa-*  
 10        *cilities, each of—*

11                *“(A) environmental problems, contami-*  
 12        *nants, hazardous substances, and pollutant emis-*  
 13        *sions, including—*

14                *“(i) lead from drinking water;*

15                *“(ii) lead from materials and products;*

16                *“(iii) asbestos;*

17                *“(iv) radon;*

18                *“(v) the presence of elemental mercury*  
 19        *releases from products and containers;*

20                *“(vi) pollutant emissions from mate-*  
 21        *rials and products; and*

22                *“(vii) any other environmental prob-*  
 23        *lem, contaminant, hazardous substance, or*  
 24        *pollutant emission that present or may*

1                   *present a risk to the health of occupants of*  
 2                   *the school facilities or environment;*  
 3                   “(B) *natural day lighting;*  
 4                   “(C) *ventilation choices and technologies;*  
 5                   “(D) *heating and cooling choices and tech-*  
 6                   *nologies;*  
 7                   “(E) *moisture control and mold;*  
 8                   “(F) *maintenance, cleaning, and pest con-*  
 9                   *trol activities;*  
 10                  “(G) *acoustics; and*  
 11                  “(H) *other issues relating to the health,*  
 12                  *comfort, productivity, and performance of occu-*  
 13                  *pants of the school facilities;*  
 14                  “(4) *provides technical assistance on siting, de-*  
 15                  *sign, management, and operation of school facilities,*  
 16                  *including facilities used by students with disabilities*  
 17                  *or special needs;*  
 18                  “(5) *collaborates with federally funded pediatric*  
 19                  *environmental health centers to assist in on-site school*  
 20                  *environmental investigations;*  
 21                  “(6) *assists States and the public in better un-*  
 22                  *derstanding and improving the environmental health*  
 23                  *of children; and*  
 24                  “(7) *takes into account the special vulnerability*  
 25                  *of children in low-income and minority communities*

1       to exposures from contaminants, hazardous sub-  
2       stances, and pollutant emissions.

3       “(b) *PUBLIC OUTREACH.*—*The Federal Director and*  
4       *Commercial Director shall ensure, to the maximum extent*  
5       *practicable, that the public clearinghouse established under*  
6       *section 423 of the Energy Independence and Security Act*  
7       *of 2007 receives and makes available—*

8               “(1) *information from the Administrator that is*  
9       *contained in the report described in section 503(a);*  
10       *and*

11               “(2) *information on the exposure of children to*  
12       *environmental hazards in school facilities, as pro-*  
13       *vided by the Administrator.*

14       **“SEC. 505. AUTHORIZATION OF APPROPRIATIONS.**

15       *“There are authorized to be appropriated to carry out*  
16       *this title \$1,000,000 for fiscal year 2009, and \$1,500,000*  
17       *for each of fiscal years 2010 through 2013, to remain avail-*  
18       *able until expended.”.*

19       (b) *TABLE OF CONTENTS AMENDMENT.*—*The table of*  
20       *contents for the Toxic Substances Control Act (15 U.S.C.*  
21       *2601 et seq.) is amended by adding at the end the following:*

**“TITLE V—HEALTHY HIGH-PERFORMANCE SCHOOLS**

*“Sec. 501. Grants for healthy school environments.*

*“Sec. 502. Model guidelines for siting of school facilities.*

*“Sec. 503. Public outreach.*

*“Sec. 504. Environmental health program.*

*“Sec. 505. Authorization of appropriations.”.*

1 **SEC. 462. STUDY ON INDOOR ENVIRONMENTAL QUALITY IN**  
2 **SCHOOLS.**

3 (a) *IN GENERAL.*—*The Administrator of the Environ-*  
4 *mental Protection Agency shall enter into an arrangement*  
5 *with the Secretary of Education and the Secretary of En-*  
6 *ergy to conduct a detailed study of how sustainable building*  
7 *features such as energy efficiency affect multiple perceived*  
8 *indoor environmental quality stressors on students in K–*  
9 *12 schools.*

10 (b) *CONTENTS.*—*The study shall—*

11 (1) *investigate the combined effect building*  
12 *stressors such as heating, cooling, humidity, lighting,*  
13 *and acoustics have on building occupants' health, pro-*  
14 *ductivity, and overall well-being;*

15 (2) *identify how sustainable building features,*  
16 *such as energy efficiency, are influencing these human*  
17 *outcomes singly and in concert; and*

18 (3) *ensure that the impacts of the indoor envi-*  
19 *ronmental quality are evaluated as a whole.*

20 (c) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
21 *authorized to be appropriated for carrying out this section*  
22 *\$200,000 for each of the fiscal years 2008 through 2012.*

1     ***Subtitle F—Institutional Entities***

2     ***SEC. 471. ENERGY SUSTAINABILITY AND EFFICIENCY***

3                     ***GRANTS AND LOANS FOR INSTITUTIONS.***

4             *Part G of title III of the Energy Policy and Conserva-*  
 5     *tion Act is amended by inserting after section 399 (42*  
 6     *U.S.C. 6371h) the following:*

7     ***“SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY***

8                     ***GRANTS AND LOANS FOR INSTITUTIONS.***

9             *“(a) DEFINITIONS.—In this section:*

10                 *“(1) COMBINED HEAT AND POWER.—The term*  
 11             *‘combined heat and power’ means the generation of*  
 12             *electric energy and heat in a single, integrated sys-*  
 13             *tem, with an overall thermal efficiency of 60 percent*  
 14             *or greater on a higher-heating-value basis.*

15                 *“(2) DISTRICT ENERGY SYSTEMS.—The term*  
 16             *‘district energy systems’ means systems providing*  
 17             *thermal energy from a renewable energy source, ther-*  
 18             *mal energy source, or highly efficient technology to*  
 19             *more than 1 building or fixed energy-consuming use*  
 20             *from 1 or more thermal-energy production facilities*  
 21             *through pipes or other means to provide space heat-*  
 22             *ing, space conditioning, hot water, steam, compres-*  
 23             *sion, process energy, or other end uses for that energy.*

24                 *“(3) ENERGY SUSTAINABILITY.—The term ‘en-*  
 25             *ergy sustainability’ includes using a renewable energy*



1       source, thermal energy source, or a highly efficient  
 2       technology for transportation, electricity generation,  
 3       heating, cooling, lighting, or other energy services in  
 4       fixed installations.

5               “(4) *INSTITUTION OF HIGHER EDUCATION.*—The  
 6       term ‘institution of higher education’ has the meaning  
 7       given the term in section 2 of the Energy Policy Act  
 8       of 2005 (42 U.S.C. 15801).

9               “(5) *INSTITUTIONAL ENTITY.*—The term ‘institu-  
 10      tional entity’ means an institution of higher edu-  
 11      cation, a public school district, a local government, a  
 12      municipal utility, or a designee of 1 of those entities.

13              “(6) *RENEWABLE ENERGY SOURCE.*—The term  
 14      ‘renewable energy source’ has the meaning given the  
 15      term in section 609 of the Public Utility Regulatory  
 16      Policies Act of 1978 (7 U.S.C. 918c).

17              “(7) *SUSTAINABLE ENERGY INFRASTRUCTURE.*—  
 18      The term ‘sustainable energy infrastructure’ means—

19                      “(A) facilities for production of energy from  
 20                      renewable energy sources, thermal energy sources,  
 21                      or highly efficient technologies, including com-  
 22                      bined heat and power or other waste heat use;  
 23                      and

24                      “(B) district energy systems.

1           “(8) *THERMAL ENERGY SOURCE*.—*The term*  
2           *‘thermal energy source’ means—*

3                   “(A) *a natural source of cooling or heating*  
4                   *from lake or ocean water; and*

5                   “(B) *recovery of useful energy that would*  
6                   *otherwise be wasted from ongoing energy uses.*

7           “(b) *TECHNICAL ASSISTANCE GRANTS*.—

8                   “(1) *IN GENERAL*.—*Subject to the availability of*  
9                   *appropriated funds, the Secretary shall implement a*  
10                  *program of information dissemination and technical*  
11                  *assistance to institutional entities to assist the insti-*  
12                  *tutional entities in identifying, evaluating, designing,*  
13                  *and implementing sustainable energy infrastructure*  
14                  *projects in energy sustainability.*

15                  “(2) *ASSISTANCE*.—*The Secretary shall support*  
16                  *institutional entities in—*

17                          “(A) *identification of opportunities for sus-*  
18                          *tainable energy infrastructure;*

19                          “(B) *understanding the technical and eco-*  
20                          *nomie characteristics of sustainable energy infra-*  
21                          *structure;*

22                          “(C) *utility interconnection and negotiation*  
23                          *of power and fuel contracts;*

24                          “(D) *understanding financing alternatives;*

25                          “(E) *permitting and siting issues;*

1           “(F) obtaining case studies of similar and  
 2           successful sustainable energy infrastructure sys-  
 3           tems; and

4           “(G) reviewing and obtaining computer  
 5           software for assessment, design, and operation  
 6           and maintenance of sustainable energy infra-  
 7           structure systems.

8           “(3) *ELIGIBLE COSTS FOR TECHNICAL ASSIST-*  
 9           *ANCE GRANTS.*—On receipt of an application of an  
 10          institutional entity, the Secretary may make grants  
 11          to the institutional entity to fund a portion of the  
 12          cost of—

13           “(A) feasibility studies to assess the poten-  
 14           tial for implementation or improvement of sus-  
 15           tainable energy infrastructure;

16           “(B) analysis and implementation of strate-  
 17           gies to overcome barriers to project implementa-  
 18           tion, including financial, contracting, siting,  
 19           and permitting barriers; and

20           “(C) detailed engineering of sustainable en-  
 21           ergy infrastructure.

22          “(c) *GRANTS FOR ENERGY EFFICIENCY IMPROVEMENT*  
 23          *AND ENERGY SUSTAINABILITY.*—

24          “(1) *GRANTS.*—

1           “(A) *IN GENERAL.*—*The Secretary shall*  
 2           *award grants to institutional entities to carry*  
 3           *out projects to improve energy efficiency on the*  
 4           *grounds and facilities of the institutional entity.*

5           “(B) *REQUIREMENT.*—*To the extent that*  
 6           *applications have been submitted, grants under*  
 7           *subparagraph (A) shall include not less than 1*  
 8           *grant each year to an institution of higher edu-*  
 9           *cation in each State.*

10           “(C) *MINIMUM FUNDING.*—*Not less than 50*  
 11           *percent of the total funding for all grants under*  
 12           *this subsection shall be awarded in grants to in-*  
 13           *stitutions of higher education.*

14           “(2) *CRITERIA.*—*Evaluation of projects for grant*  
 15           *funding shall be based on criteria established by the*  
 16           *Secretary, including criteria relating to—*

17                   “(A) *improvement in energy efficiency;*

18                   “(B) *reduction in greenhouse gas emissions*  
 19                   *and other air emissions, including criteria air*  
 20                   *pollutants and ozone-depleting refrigerants;*

21                   “(C) *increased use of renewable energy*  
 22                   *sources or thermal energy sources;*

23                   “(D) *reduction in consumption of fossil*  
 24                   *fuels;*

25                   “(E) *active student participation; and*

1                   “(F) need for funding assistance.

2                   “(3) *CONDITION.*—As a condition of receiving a  
3                   grant under this subsection, an institutional entity  
4                   shall agree—

5                   “(A) to implement a public awareness cam-  
6                   paign concerning the project in the community  
7                   in which the institutional entity is located; and

8                   “(B) to submit to the Secretary, and make  
9                   available to the public, reports on any efficiency  
10                  improvements, energy cost savings, and environ-  
11                  mental benefits achieved as part of a project car-  
12                  ried out under paragraph (1), including quan-  
13                  tification of the results relative to the criteria de-  
14                  scribed under paragraph (2).

15                  “(d) *GRANTS FOR INNOVATION IN ENERGY SUSTAIN-*  
16                  *ABILITY.*—

17                  “(1) *GRANTS.*—

18                  “(A) *IN GENERAL.*—The Secretary shall  
19                  award grants to institutional entities to engage  
20                  in innovative energy sustainability projects.

21                  “(B) *REQUIREMENT.*—To the extent that  
22                  applications have been submitted, grants under  
23                  subparagraph (A) shall include not less than 2  
24                  grants each year to institutions of higher edu-  
25                  cation in each State.

1           “(C) *MINIMUM FUNDING.*—Not less than 50  
 2           percent of the total funding for all grants under  
 3           this subsection shall be awarded in grants to in-  
 4           stitutions of higher education.

5           “(2) *INNOVATION PROJECTS.*—An innovation  
 6           project carried out with a grant under this subsection  
 7           shall—

8           “(A) involve—

9                   “(i) an innovative technology that is  
 10                  not yet commercially available; or

11                  “(ii) available technology in an inno-  
 12                  vative application that maximizes energy  
 13                  efficiency and sustainability;

14           “(B) have the greatest potential for testing  
 15           or demonstrating new technologies or processes;  
 16           and

17           “(C) to the extent undertaken by an institu-  
 18           tion of higher education, ensure active student  
 19           participation in the project, including the plan-  
 20           ning, implementation, evaluation, and other  
 21           phases of projects.

22           “(3) *CONDITION.*—As a condition of receiving a  
 23           grant under this subsection, an institutional entity  
 24           shall agree to submit to the Secretary, and make

1       *available to the public, reports that describe the re-*  
 2       *sults of the projects carried out using grant funds.*

3       “(e) *ALLOCATION TO INSTITUTIONS OF HIGHER EDU-*  
 4       *CATION WITH SMALL ENDOWMENTS.*—

5               “(1) *IN GENERAL.*—*Of the total amount of*  
 6       *grants provided to institutions of higher education for*  
 7       *a fiscal year under this section, the Secretary shall*  
 8       *provide not less than 50 percent of the amount to in-*  
 9       *stitutions of higher education that have an endow-*  
 10       *ment of not more than \$100,000,000.*

11              “(2) *REQUIREMENT.*—*To the extent that appli-*  
 12       *cations have been submitted, at least 50 percent of the*  
 13       *amount described in paragraph (1) shall be provided*  
 14       *to institutions of higher education that have an en-*  
 15       *dowment of not more than \$50,000,000.*

16       “(f) *GRANT AMOUNTS.*—

17              “(1) *IN GENERAL.*—*If the Secretary determines*  
 18       *that cost sharing is appropriate, the amounts of*  
 19       *grants provided under this section shall be limited as*  
 20       *provided in this subsection.*

21              “(2) *TECHNICAL ASSISTANCE GRANTS.*—*In the*  
 22       *case of grants for technical assistance under sub-*  
 23       *section (b), grant funds shall be available for not*  
 24       *more than—*

25              “(A) *an amount equal to the lesser of—*

1 “(i) \$50,000; or

2 “(ii) 75 percent of the cost of feasi-  
3 bility studies to assess the potential for im-  
4 plementation or improvement of sustainable  
5 energy infrastructure;

6 “(B) an amount equal to the lesser of—

7 “(i) \$90,000; or

8 “(ii) 60 percent of the cost of guidance  
9 on overcoming barriers to project implemen-  
10 tation, including financial, contracting,  
11 siting, and permitting barriers; and

12 “(C) an amount equal to the lesser of—

13 “(i) \$250,000; or

14 “(ii) 40 percent of the cost of detailed  
15 engineering and design of sustainable en-  
16 ergy infrastructure.

17 “(3) GRANTS FOR EFFICIENCY IMPROVEMENT  
18 AND ENERGY SUSTAINABILITY.—In the case of grants  
19 for efficiency improvement and energy sustainability  
20 under subsection (c), grant funds shall be available  
21 for not more than an amount equal to the lesser of—

22 “(A) \$1,000,000; or

23 “(B) 60 percent of the total cost.

24 “(4) GRANTS FOR INNOVATION IN ENERGY SUS-  
25 TAINABILITY.—In the case of grants for innovation in



1       *energy sustainability under subsection (d), grant*  
 2       *funds shall be available for not more than an amount*  
 3       *equal to the lesser of—*

4               “(A) \$500,000; or

5               “(B) 75 percent of the total cost.

6       “(g) *LOANS FOR ENERGY EFFICIENCY IMPROVEMENT*  
 7       *AND ENERGY SUSTAINABILITY.—*

8               “(1) *IN GENERAL.—Subject to the availability of*  
 9       *appropriated funds, the Secretary shall provide loans*  
 10       *to institutional entities for the purpose of imple-*  
 11       *menting energy efficiency improvements and sustain-*  
 12       *able energy infrastructure.*

13              “(2) *TERMS AND CONDITIONS.—*

14              “(A) *IN GENERAL.—Except as otherwise*  
 15       *provided in this paragraph, loans made under*  
 16       *this subsection shall be on such terms and condi-*  
 17       *tions as the Secretary may prescribe.*

18              “(B) *MATURITY.—The final maturity of*  
 19       *loans made within a period shall be the lesser of,*  
 20       *as determined by the Secretary—*

21                   “(i) 20 years; or

22                   “(ii) 90 percent of the useful life of the  
 23       *principal physical asset to be financed by*  
 24       *the loan.*

1           “(C) *DEFAULT.*—No loan made under this  
 2           subsection may be subordinated to another debt  
 3           contracted by the institutional entity or to any  
 4           other claims against the institutional entity in  
 5           the case of default.

6           “(D) *BENCHMARK INTEREST RATE.*—

7           “(i) *IN GENERAL.*—Loans under this  
 8           subsection shall be at an interest rate that  
 9           is set by reference to a benchmark interest  
 10          rate (yield) on marketable Treasury securi-  
 11          ties with a similar maturity to the direct  
 12          loans being made.

13          “(ii) *MINIMUM.*—The minimum inter-  
 14          est rate of loans under this subsection shall  
 15          be at the interest rate of the benchmark fi-  
 16          nancial instrument.

17          “(iii) *NEW LOANS.*—The minimum in-  
 18          terest rate of new loans shall be adjusted  
 19          each quarter to take account of changes in  
 20          the interest rate of the benchmark financial  
 21          instrument.

22          “(E) *CREDIT RISK.*—The Secretary shall—

23               “(i) prescribe explicit standards for use  
 24               in periodically assessing the credit risk of

1                   *making direct loans under this subsection;*  
 2                   *and*

3                   “(ii) *find that there is a reasonable as-*  
 4                   *urance of repayment before making a loan.*

5                   “(F) *ADVANCE BUDGET AUTHORITY RE-*  
 6                   *QUIRED.—New direct loans may not be obligated*  
 7                   *under this subsection except to the extent that*  
 8                   *appropriations of budget authority to cover the*  
 9                   *costs of the new direct loans are made in ad-*  
 10                   *vance, as required by section 504 of the Federal*  
 11                   *Credit Reform Act of 1990 (2 U.S.C. 661c).*

12                   “(3) *CRITERIA.—Evaluation of projects for po-*  
 13                   *tential loan funding shall be based on criteria estab-*  
 14                   *lished by the Secretary, including criteria relating*  
 15                   *to—*

16                   “(A) *improvement in energy efficiency;*

17                   “(B) *reduction in greenhouse gas emissions*  
 18                   *and other air emissions, including criteria air*  
 19                   *pollutants and ozone-depleting refrigerants;*

20                   “(C) *increased use of renewable electric en-*  
 21                   *ergy sources or renewable thermal energy sources;*

22                   “(D) *reduction in consumption of fossil*  
 23                   *fuels; and*

24                   “(E) *need for funding assistance, including*  
 25                   *consideration of the size of endowment or other*

1        *financial resources available to the institutional*  
 2        *entity.*

3        “(4) *LABOR STANDARDS.*—

4                “(A) *IN GENERAL.*—All laborers and me-  
 5        *chanics employed by contractors or subcontrac-*  
 6        *tors in the performance of construction, repair,*  
 7        *or alteration work funded in whole or in part*  
 8        *under this section shall be paid wages at rates*  
 9        *not less than those prevailing on projects of a*  
 10       *character similar in the locality as determined*  
 11       *by the Secretary of Labor in accordance with*  
 12       *sections 3141 through 3144, 3146, and 3147 of*  
 13       *title 40, United States Code. The Secretary shall*  
 14       *not approve any such funding without first ob-*  
 15       *taining adequate assurance that required labor*  
 16       *standards will be maintained upon the construc-*  
 17       *tion work.*

18               “(B) *AUTHORITY AND FUNCTIONS.*—The  
 19        *Secretary of Labor shall have, with respect to the*  
 20        *labor standards specified in paragraph (1), the*  
 21        *authority and functions set forth in Reorganiza-*  
 22        *tion Plan Number 14 of 1950 (15 Fed. Reg.*  
 23        *3176; 64 Stat. 1267) and section 3145 of title 40,*  
 24        *United States Code.*

1       “(h) *PROGRAM PROCEDURES.*—Not later than 180  
 2 days after the date of enactment of this section, the Sec-  
 3 retary shall establish procedures for the solicitation and  
 4 evaluation of potential projects for grant and loan funding  
 5 and administration of the grant and loan programs.

6       “(i) *AUTHORIZATION.*—

7               “(1) *GRANTS.*—There is authorized to be appro-  
 8 priated for the cost of grants authorized in subsections  
 9 (b), (c), and (d) \$250,000,000 for each of fiscal years  
 10 2009 through 2013, of which not more than 5 percent  
 11 may be used for administrative expenses.

12              “(2) *LOANS.*—There is authorized to be appro-  
 13 priated for the initial cost of direct loans authorized  
 14 in subsection (g) \$500,000,000 for each of fiscal years  
 15 2009 through 2013, of which not more than 5 percent  
 16 may be used for administrative expenses.”.

17       ***Subtitle G—Public and Assisted***  
 18                               ***Housing***

19       ***SEC. 481. APPLICATION OF INTERNATIONAL ENERGY CON-***  
 20                               ***SERVATION CODE TO PUBLIC AND ASSISTED***  
 21                               ***HOUSING.***

22       *Section 109 of the Cranston-Gonzalez National Afford-*  
 23 *able Housing Act (42 U.S.C. 12709) is amended—*

24               (1) *in subsection (a)—*

(A) in paragraph (1)(C), by striking, “, where such standards are determined to be cost effective by the Secretary of Housing and Urban Development”; and

(B) in the first sentence of paragraph (2)—

(i) by striking “Council of American Building Officials Model Energy Code, 1992” and inserting “2006 International Energy Conservation Code”; and

(ii) by striking “, and, with respect to rehabilitation and new construction of public and assisted housing funded by HOPE VI revitalization grants under section 24 of the United States Housing Act of 1937 (42 U.S.C. 1437v), the 2003 International Energy Conservation Code”;

(2) in subsection (b)—

(A) in the heading, by striking “**MODEL ENERGY CODE.—**” and inserting “**INTERNATIONAL ENERGY CONSERVATION CODE.—**”;

(B) by inserting “and rehabilitation” after “all new construction”; and

(C) by striking “, and, with respect to rehabilitation and new construction of public and as-

1        *sisted housing funded by HOPE VI revitaliza-*  
 2        *tion grants under section 24 of the United States*  
 3        *Housing Act of 1937 (42 U.S.C. 1437v), the 2003*  
 4        *International Energy Conservation Code”;*  
 5        *(3) in subsection (c)—*

6                *(A) in the heading, by striking “**MODEL***  
 7        ***ENERGY CODE AND**”;* and

8                *(B) by striking “, or, with respect to reha-*  
 9        *bilitation and new construction of public and as-*  
 10        *sisted housing funded by HOPE VI revitaliza-*  
 11        *tion grants under section 24 of the United States*  
 12        *Housing Act of 1937 (42 U.S.C. 1437v), the 2003*  
 13        *International Energy Conservation Code”;*

14        *(4) by adding at the end the following:*

15        *“(d) FAILURE TO AMEND THE STANDARDS.—If the*  
 16        *Secretary of Housing and Urban Development and the Sec-*  
 17        *retary of Agriculture have not, within 1 year after the re-*  
 18        *quirements of the 2006 IECC or the ASHRAE Standard*  
 19        *90.1–2004 are revised, amended the standards or made a*  
 20        *determination under subsection (c), all new construction*  
 21        *and rehabilitation of housing specified in subsection (a)*  
 22        *shall meet the requirements of the revised code or standard*  
 23        *if—*

24                *“(1) the Secretary of Housing and Urban Devel-*  
 25        *opment or the Secretary of Agriculture make a deter-*

1     *mination that the revised codes do not negatively af-*  
 2     *fect the availability or affordability of new construc-*  
 3     *tion of assisted housing and single family and multi-*  
 4     *family residential housing (other than manufactured*  
 5     *homes) subject to mortgages insured under the Na-*  
 6     *tional Housing Act (12 U.S.C. 1701 et seq.) or in-*  
 7     *sured, guaranteed, or made by the Secretary of Agri-*  
 8     *culture under title V of the Housing Act of 1949 (42*  
 9     *U.S.C. 1471 et seq.), respectively; and*

10           “(2) the Secretary of Energy has made a deter-

11     *mination under section 304 of the Energy Conserva-*  
 12     *tion and Production Act (42 U.S.C. 6833) that the re-*  
 13     *vised code or standard would improve energy effi-*  
 14     *ciency.”;*

15           (5) by striking “CABO Model Energy Code,

16     *1992” each place it appears and inserting “the 2006*  
 17     *IECC”;* and

18           (6) by striking “1989” each place it appears and

19     *inserting “2004”.*

## 20     ***Subtitle H—General Provisions***

### 21     ***SEC. 491. DEMONSTRATION PROJECT.***

22           (a) *IN GENERAL.*—The Federal Director and the Com-

23     *mmercial Director shall establish guidelines to implement a*  
 24     *demonstration project to contribute to the research goals of*  
 25     *the Office of Commercial High-Performance Green Build-*



1 *ings and the Office of Federal High-Performance Green*  
 2 *Buildings.*

3       (b) *PROJECTS.*—*In accordance with guidelines estab-*  
 4 *lished by the Federal Director and the Commercial Director*  
 5 *under subsection (a) and the duties of the Federal Director*  
 6 *and the Commercial Director described in this title, the*  
 7 *Federal Director or the Commercial Director shall carry*  
 8 *out—*

9               (1) *for each of fiscal years 2009 through 2014,*  
 10 *1 demonstration project per year of green features in*  
 11 *a Federal building selected by the Federal Director in*  
 12 *accordance with relevant agencies and described in*  
 13 *subsection (c)(1), that—*

14                   (A) *provides for instrumentation, moni-*  
 15 *toring, and data collection related to the green*  
 16 *features, for study of the impact of the features*  
 17 *on overall energy use and operational costs, and*  
 18 *for the evaluation of the information obtained*  
 19 *through the conduct of projects and activities*  
 20 *under this title; and*

21                   (B) *achieves the highest rating offered by*  
 22 *the high performance green building system iden-*  
 23 *tified pursuant to section 436(h);*

24               (2) *no fewer than 4 demonstration projects at 4*  
 25 *universities, that, as competitively selected by the*

1       *Commercial Director in accordance with subsection*  
2       *(c)(2), have—*

3               *(A) appropriate research resources and rel-*  
4               *evant projects to meet the goals of the demonstra-*  
5               *tion project established by the Office of Commer-*  
6               *cial High-Performance Green Buildings; and*

7               *(B) the ability—*

8                   *(i) to serve as a model for high-per-*  
9                   *formance green building initiatives, includ-*  
10                  *ing research and education by achieving the*  
11                  *highest rating offered by the high perform-*  
12                  *ance green building system identified pur-*  
13                  *suant to section 436(h);*

14                  *(ii) to identify the most effective ways*  
15                  *to use high-performance green building and*  
16                  *landscape technologies to engage and edu-*  
17                  *cate undergraduate and graduate students;*

18                  *(iii) to effectively implement a high-*  
19                  *performance green building education pro-*  
20                  *gram for students and occupants;*

21                  *(iv) to demonstrate the effectiveness of*  
22                  *various high-performance technologies, in-*  
23                  *cluding their impacts on energy use and*  
24                  *operational costs, in each of the 4 climatic*

1                    *regions of the United States described in*  
 2                    *subsection (c)(2)(B); and*

3                    *(v) to explore quantifiable and non-*  
 4                    *quantifiable beneficial impacts on public*  
 5                    *health and employee and student perform-*  
 6                    *ance;*

7                    *(3) demonstration projects to evaluate replicable*  
 8                    *approaches of achieving high performance in actual*  
 9                    *building operation in various types of commercial*  
 10                   *buildings in various climates; and*

11                   *(4) deployment activities to disseminate infor-*  
 12                   *mation on and encourage widespread adoption of*  
 13                   *technologies, practices, and policies to achieve zero-*  
 14                   *net-energy commercial buildings or low energy use*  
 15                   *and effective monitoring of energy use in commercial*  
 16                   *buildings.*

17                   *(c) CRITERIA.—*

18                   *(1) FEDERAL FACILITIES.—With respect to the*  
 19                   *existing or proposed Federal facility at which a dem-*  
 20                   *onstration project under this section is conducted, the*  
 21                   *Federal facility shall—*

22                   *(A) be an appropriate model for a project*  
 23                   *relating to—*

24                   *(i) the effectiveness of high-performance*  
 25                   *technologies;*

1                   (ii) analysis of materials, components,  
 2                   systems, and emergency operations in the  
 3                   building, and the impact of those materials,  
 4                   components, and systems, including the im-  
 5                   pact on the health of building occupants;

6                   (iii) life-cycle costing and life-cycle as-  
 7                   sessment of building materials and systems;  
 8                   and

9                   (iv) location and design that promote  
 10                  access to the Federal facility through walk-  
 11                  ing, biking, and mass transit; and

12                (B) possess sufficient technological and or-  
 13                ganizational adaptability.

14               (2) UNIVERSITIES.—With respect to the 4 uni-  
 15               versities at which a demonstration project under this  
 16               section is conducted—

17                (A) the universities should be selected, after  
 18                careful review of all applications received con-  
 19                taining the required information, as determined  
 20                by the Commercial Director, based on—

21                (i) successful and established public-  
 22                private research and development partner-  
 23                ships;

1                   (ii) demonstrated capabilities to con-  
 2                   struct or renovate buildings that meet high  
 3                   indoor environmental quality standards;

4                   (iii) organizational flexibility;

5                   (iv) technological adaptability;

6                   (v) the demonstrated capacity of at  
 7                   least 1 university to replicate lessons  
 8                   learned among nearby or sister universities,  
 9                   preferably by participation in groups or  
 10                  consortia that promote sustainability;

11                  (vi) the demonstrated capacity of at  
 12                  least 1 university to have officially-adopted,  
 13                  institution-wide “high-performance green  
 14                  building” guidelines for all campus build-  
 15                  ing projects; and

16                  (vii) the demonstrated capacity of at  
 17                  least 1 university to have been recognized by  
 18                  similar institutions as a national leader in  
 19                  sustainability education and curriculum for  
 20                  students of the university; and

21                  (B) each university shall be located in a dif-  
 22                  ferent climatic region of the United States, each  
 23                  of which regions shall have, as determined by the  
 24                  Office of Commercial High-Performance Green  
 25                  Buildings—

- 1                   (i) a hot, dry climate;
- 2                   (ii) a hot, humid climate;
- 3                   (iii) a cold climate; or
- 4                   (iv) a temperate climate (including a
- 5                   climate with cold winters and humid sum-
- 6                   mers).

7           (d) *APPLICATIONS.*—To receive a grant under sub-  
8 section (b), an eligible applicant shall submit to the Federal  
9 Director or the Commercial Director an application at such  
10 time, in such manner, and containing such information as  
11 the Director may require, including a written assurance  
12 that all laborers and mechanics employed by contractors or  
13 subcontractors during construction, alteration, or repair  
14 that is financed, in whole or in part, by a grant under  
15 this section shall be paid wages at rates not less than those  
16 prevailing on similar construction in the locality, as deter-  
17 mined by the Secretary of Labor in accordance with sec-  
18 tions 3141 through 3144, 3146, and 3147 of title 40, United  
19 States Code. The Secretary of Labor shall, with respect to  
20 the labor standards described in this subsection, have the  
21 authority and functions set forth in Reorganization Plan  
22 Numbered 14 of 1950 (5 U.S.C. App.) and section 3145 of  
23 title 40, United States Code.

1       (e) *REPORT.*—Not later than 1 year after the date of  
 2   enactment of this Act, and annually thereafter through Sep-  
 3   tember 30, 2014—

4           (1) *the Federal Director and the Commercial Di-*  
 5       *rector shall submit to the Secretary a report that de-*  
 6       *scribes the status of the demonstration projects; and*

7           (2) *each University at which a demonstration*  
 8       *project under this section is conducted shall submit to*  
 9       *the Secretary a report that describes the status of the*  
 10      *demonstration projects under this section.*

11      (f) *AUTHORIZATION OF APPROPRIATIONS.*—There is  
 12   authorized to be appropriated to carry out the demonstra-  
 13   tion project described in section (b)(1) \$10,000,000 for the  
 14   period of fiscal years 2008 through 2012, and to carry out  
 15   the demonstration project described in section (b)(2),  
 16   \$10,000,000 for the period of fiscal years 2008 through  
 17   2012, to remain available until expended.

18   **SEC. 492. RESEARCH AND DEVELOPMENT.**

19      (a) *ESTABLISHMENT.*—The Federal Director and the  
 20   Commercial Director, jointly and in coordination with the  
 21   Advisory Committee, shall—

22           (1)(A) *survey existing research and studies relat-*  
 23       *ing to high-performance green buildings; and*

24           (B) *coordinate activities of common interest;*

1           (2) *develop and recommend a high-performance*  
 2       *green building research plan that—*

3           (A) *identifies information and research*  
 4       *needs, including the relationships between*  
 5       *human health, occupant productivity, safety, se-*  
 6       *curity, and accessibility and each of—*

7           (i) *emissions from materials and prod-*  
 8       *ucts in the building;*

9           (ii) *natural day lighting;*

10          (iii) *ventilation choices and tech-*  
 11       *nologies;*

12          (iv) *heating, cooling, and system con-*  
 13       *trol choices and technologies;*

14          (v) *moisture control and mold;*

15          (vi) *maintenance, cleaning, and pest*  
 16       *control activities;*

17          (vii) *acoustics;*

18          (viii) *access to public transportation;*

19       *and*

20          (ix) *other issues relating to the health,*  
 21       *comfort, productivity, and performance of*  
 22       *occupants of the building;*

23          (B) *promotes the development and dissemi-*  
 24       *nation of high-performance green building meas-*



1           urement tools that, at a minimum, may be  
2           used—

3                   (i) to monitor and assess the life-cycle  
4                   performance of facilities (including dem-  
5                   onstration projects) built as high-perform-  
6                   ance green buildings; and

7                   (ii) to perform life-cycle assessments;  
8                   and

9                   (C) identifies and tests new and emerging  
10                  technologies for high performance green build-  
11                  ings;

12               (3) assist the budget and life-cycle costing func-  
13               tions of the Directors' Offices under section 436(d);

14               (4) study and identify potential benefits of green  
15               buildings relating to security, natural disaster, and  
16               emergency needs of the Federal Government; and

17               (5) support other research initiatives determined  
18               by the Directors' Offices.

19           (b) *INDOOR AIR QUALITY.*—The Federal Director, in  
20           consultation with the Administrator of the Environmental  
21           Protection Agency and the Advisory Committee, shall de-  
22           velop and carry out a comprehensive indoor air quality  
23           program for all Federal facilities to ensure the safety of  
24           Federal workers and facility occupants—

1           (1) *during new construction and renovation of*  
 2       *facilities; and*

3           (2) *in existing facilities.*

4 **SEC. 493. ENVIRONMENTAL PROTECTION AGENCY DEM-**  
 5                   **ONSTRATION GRANT PROGRAM FOR LOCAL**  
 6                   **GOVERNMENTS.**

7       *Title III of the Clean Air Act (42 U.S.C. 7601 et seq.)*  
 8       *is amended by adding at the end the following:*

9       **“SEC. 329. DEMONSTRATION GRANT PROGRAM FOR LOCAL**  
 10                   **GOVERNMENTS.**

11       “(a) *GRANT PROGRAM.*—

12           “(1) *IN GENERAL.*—*The Administrator shall es-*  
 13       *tablish a demonstration program under which the Ad-*  
 14       *ministrator shall provide competitive grants to assist*  
 15       *local governments (such as municipalities and coun-*  
 16       *ties), with respect to local government buildings—*

17                   “(A) *to deploy cost-effective technologies and*  
 18       *practices; and*

19                   “(B) *to achieve operational cost savings,*  
 20       *through the application of cost-effective tech-*  
 21       *nologies and practices, as verified by the Admin-*  
 22       *istrator.*

23       “(2) *COST SHARING.*—

1           “(A) *IN GENERAL.*—*The Federal share of*  
 2           *the cost of an activity carried out using a grant*  
 3           *provided under this section shall be 40 percent.*

4           “(B) *WAIVER OF NON-FEDERAL SHARE.*—  
 5           *The Administrator may waive up to 100 percent*  
 6           *of the local share of the cost of any grant under*  
 7           *this section should the Administrator determine*  
 8           *that the community is economically distressed,*  
 9           *pursuant to objective economic criteria estab-*  
 10           *lished by the Administrator in published guide-*  
 11           *lines.*

12           “(3) *MAXIMUM AMOUNT.*—*The amount of a*  
 13           *grant provided under this subsection shall not exceed*  
 14           *\$1,000,000.*

15           “(b) *GUIDELINES.*—

16           “(1) *IN GENERAL.*—*Not later than 1 year after*  
 17           *the date of enactment of this section, the Adminis-*  
 18           *trator shall issue guidelines to implement the grant*  
 19           *program established under subsection (a).*

20           “(2) *REQUIREMENTS.*—*The guidelines under*  
 21           *paragraph (1) shall establish—*

22           “(A) *standards for monitoring and*  
 23           *verification of operational cost savings through*  
 24           *the application of cost-effective technologies and*  
 25           *practices reported by grantees under this section;*

1           “(B) standards for grantees to implement  
2           training programs, and to provide technical as-  
3           sistance and education, relating to the retrofit of  
4           buildings using cost-effective technologies and  
5           practices; and

6           “(C) a requirement that each local govern-  
7           ment that receives a grant under this section  
8           shall achieve facility-wide cost savings, through  
9           renovation of existing local government buildings  
10          using cost-effective technologies and practices, of  
11          at least 40 percent as compared to the baseline  
12          operational costs of the buildings before the ren-  
13          ovation (as calculated assuming a 3-year, weath-  
14          er-normalized average).

15          “(c) COMPLIANCE WITH STATE AND LOCAL LAW.—  
16          Nothing in this section or any program carried out using  
17          a grant provided under this section supersedes or otherwise  
18          affects any State or local law, to the extent that the State  
19          or local law contains a requirement that is more stringent  
20          than the relevant requirement of this section.

21          “(d) AUTHORIZATION OF APPROPRIATIONS.—There is  
22          authorized to be appropriated to carry out this section  
23          \$20,000,000 for each of fiscal years 2007 through 2012.

24          “(e) REPORTS.—

1           “(1) *IN GENERAL.*—*The Administrator shall pro-*  
 2           *vide annual reports to Congress on cost savings*  
 3           *achieved and actions taken and recommendations*  
 4           *made under this section, and any recommendations*  
 5           *for further action.*

6           “(2) *FINAL REPORT.*—*The Administrator shall*  
 7           *issue a final report at the conclusion of the program,*  
 8           *including findings, a summary of total cost savings*  
 9           *achieved, and recommendations for further action.*

10          “(f) *TERMINATION.*—*The program under this section*  
 11          *shall terminate on September 30, 2012.*

12          “(g) *DEFINITIONS.*—*In this section, the terms ‘cost ef-*  
 13          *fective technologies and practices’ and ‘operating cost sav-*  
 14          *ings’ shall have the meanings defined in section 401 of the*  
 15          *Energy Independence and Security Act of 2007.’.*

16          **SEC. 494. GREEN BUILDING ADVISORY COMMITTEE.**

17          “(a) *ESTABLISHMENT.*—*Not later than 180 days after*  
 18          *the date of enactment of this Act, the Federal Director, in*  
 19          *coordination with the Commercial Director, shall establish*  
 20          *an advisory committee, to be known as the “Green Building*  
 21          *Advisory Committee”.*

22          “(b) *MEMBERSHIP.*—

23                  “(1) *IN GENERAL.*—*The Committee shall be com-*  
 24                  *posed of representatives of, at a minimum—*

1           (A) each agency referred to in section  
2           421(e); and

3           (B) other relevant agencies and entities, as  
4           determined by the Federal Director, including at  
5           least 1 representative of each of—

6                   (i) State and local governmental green  
7                   building programs;

8                   (ii) independent green building asso-  
9                   ciations or councils;

10                  (iii) building experts, including archi-  
11                  tects, material suppliers, and construction  
12                  contractors;

13                  (iv) security advisors focusing on na-  
14                  tional security needs, natural disasters, and  
15                  other dire emergency situations;

16                  (v) public transportation industry ex-  
17                  perts; and

18                  (vi) environmental health experts, in-  
19                  cluding those with experience in children's  
20                  health.

21           (2) NON-FEDERAL MEMBERS.—The total number  
22           of non-Federal members on the Committee at any  
23           time shall not exceed 15.

24           (c) MEETINGS.—The Federal Director shall establish  
25           a regular schedule of meetings for the Committee.

1       (d) *DUTIES.*—*The Committee shall provide advice and*  
 2 *expertise for use by the Federal Director in carrying out*  
 3 *the duties under this subtitle, including such recommenda-*  
 4 *tions relating to Federal activities carried out under sec-*  
 5 *tions 434 through 436 as are agreed to by a majority of*  
 6 *the members of the Committee.*

7       (e) *FACA EXEMPTION.*—*The Committee shall not be*  
 8 *subject to section 14 of the Federal Advisory Committee Act*  
 9 *(5 U.S.C. App.).*

10 **SEC. 495. ADVISORY COMMITTEE ON ENERGY EFFICIENCY**  
 11 **FINANCE.**

12       (a) *ESTABLISHMENT.*—*The Secretary, acting through*  
 13 *the Assistant Secretary of Energy for Energy Efficiency*  
 14 *and Renewable Energy, shall establish an Advisory Com-*  
 15 *mittee on Energy Efficiency Finance to provide advice and*  
 16 *recommendations to the Department on energy efficiency fi-*  
 17 *nance and investment issues, options, ideas, and trends,*  
 18 *and to assist the energy community in identifying practical*  
 19 *ways of lowering costs and increasing investments in energy*  
 20 *efficiency technologies.*

21       (b) *MEMBERSHIP.*—*The advisory committee estab-*  
 22 *lished under this section shall have a balanced membership*  
 23 *that shall include members with expertise in—*

24               (1) *availability of seed capital;*

25               (2) *availability of venture capital;*

1           (3) *availability of other sources of private equity;*

2           (4) *investment banking with respect to corporate*

3           *finance;*

4           (5) *investment banking with respect to mergers*

5           *and acquisitions;*

6           (6) *equity capital markets;*

7           (7) *debt capital markets;*

8           (8) *research analysis;*

9           (9) *sales and trading;*

10          (10) *commercial lending; and*

11          (11) *residential lending.*

12          (c) *TERMINATION.—The Advisory Committee on En-*

13          *ergy Efficiency Finance shall terminate on the date that*

14          *is 10 years after the date of enactment of this Act.*

15          (d) *AUTHORIZATION OF APPROPRIATIONS.—There are*

16          *authorized to be appropriated such sums as are necessary*

17          *to the Secretary for carrying out this section.*



1 **TITLE V—ENERGY SAVINGS IN**  
 2 **GOVERNMENT AND PUBLIC**  
 3 **INSTITUTIONS**

4 **Subtitle A—United States Capitol**  
 5 **Complex**

6 **SEC. 501. CAPITOL COMPLEX PHOTOVOLTAIC ROOF FEASI-**  
 7 **BILITY STUDIES.**

8 (a) *STUDIES.*—The Architect of the Capitol may con-  
 9 duct feasibility studies regarding construction of photo-  
 10 voltaic roofs for the Rayburn House Office Building and  
 11 the Hart Senate Office Building.

12 (b) *REPORT.*—Not later than 6 months after the date  
 13 of enactment of this Act, the Architect of the Capitol shall  
 14 transmit to the Committee on Transportation and Infra-  
 15 structure of the House of Representatives and the Committee  
 16 on Rules and Administration of the Senate a report on the  
 17 results of the feasibility studies and recommendations re-  
 18 garding construction of photovoltaic roofs for the buildings  
 19 referred to in subsection (a).

20 (c) *AUTHORIZATION OF APPROPRIATIONS.*—There is  
 21 authorized to be appropriated to carry out this section  
 22 \$500,000.

23 **SEC. 502. CAPITOL COMPLEX E-85 REFUELING STATION.**

24 (a) *CONSTRUCTION.*—The Architect of the Capitol may  
 25 construct a fuel tank and pumping system for E-85 fuel

1 *at or within close proximity to the Capitol Grounds Fuel*  
 2 *Station.*

3 (b) *USE.—The E–85 fuel tank and pumping system*  
 4 *shall be available for use by all legislative branch vehicles*  
 5 *capable of operating with E–85 fuel, subject to such other*  
 6 *legislative branch agencies reimbursing the Architect of the*  
 7 *Capitol for the costs of E–85 fuel used by such other legisla-*  
 8 *tive branch vehicles.*

9 (c) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
 10 *authorized to be appropriated to carry out this section*  
 11 *\$640,000 for fiscal year 2008.*

12 **SEC. 503. ENERGY AND ENVIRONMENTAL MEASURES IN**  
 13 **CAPITOL COMPLEX MASTER PLAN.**

14 (a) *IN GENERAL.—To the maximum extent prac-*  
 15 *ticable, the Architect of the Capitol shall include energy effi-*  
 16 *ciency and conservation measures, greenhouse gas emission*  
 17 *reduction measures, and other appropriate environmental*  
 18 *measures in the Capitol Complex Master Plan.*

19 (b) *REPORT.—Not later than 6 months after the date*  
 20 *of enactment of this Act, the Architect of the Capitol shall*  
 21 *submit to the Committee on Transportation and Infrastruc-*  
 22 *ture of the House of Representatives and the Committee on*  
 23 *Rules and Administration of the Senate a report on the*  
 24 *energy efficiency and conservation measures, greenhouse gas*  
 25 *emission reduction measures, and other appropriate envi-*

1 *ronmental measures included in the Capitol Complex Mas-*  
 2 *ter Plan pursuant to subsection (a).*

3 **SEC. 504. PROMOTING MAXIMUM EFFICIENCY IN OPER-**  
 4 **ATION OF CAPITOL POWER PLANT.**

5 *(a) STEAM BOILERS.—*

6 *(1) IN GENERAL.—The Architect of the Capitol*  
 7 *shall take such steps as may be necessary to operate*  
 8 *the steam boilers at the Capitol Power Plant in the*  
 9 *most energy efficient manner possible to minimize*  
 10 *carbon emissions and operating costs, including ad-*  
 11 *justing steam pressures and adjusting the operation of*  
 12 *the boilers to take into account variations in demand,*  
 13 *including seasonality, for the use of the system.*

14 *(2) EFFECTIVE DATE.—The Architect shall im-*  
 15 *plement the steps required under paragraph (1) not*  
 16 *later than 30 days after the date of the enactment of*  
 17 *this Act.*

18 *(b) CHILLER PLANT.—*

19 *(1) IN GENERAL.—The Architect of the Capitol*  
 20 *shall take such steps as may be necessary to operate*  
 21 *the chiller plant at the Capitol Power Plant in the*  
 22 *most energy efficient manner possible to minimize*  
 23 *carbon emissions and operating costs, including ad-*  
 24 *justing water temperatures and adjusting the oper-*  
 25 *ation of the chillers to take into account variations in*

1       demand, including seasonality, for the use of the sys-  
2       tem.

3               (2) *EFFECTIVE DATE.*—*The Architect shall im-*  
4       *plement the steps required under paragraph (1) not*  
5       *later than 30 days after the date of the enactment of*  
6       *this Act.*

7               (c) *METERS.*—*Not later than 90 days after the date*  
8       *of the enactment of this Act, the Architect of the Capitol*  
9       *shall evaluate the accuracy of the meters in use at the Cap-*  
10      *itol Power Plant and correct them as necessary.*

11              (d) *REPORT ON IMPLEMENTATION.*—*Not later than*  
12      *180 days after the date of the enactment of this Act, the*  
13      *Architect of the Capitol shall complete the implementation*  
14      *of the requirements of this section and submit a report de-*  
15      *scribing the actions taken and the energy efficiencies*  
16      *achieved to the Committee on Transportation and Infra-*  
17      *structure of the House of Representatives, the Committee on*  
18      *Commerce, Science, and Transportation of the Senate, the*  
19      *Committee on House Administration of the House of Rep-*  
20      *resentatives, and the Committee on Rules and Administra-*  
21      *tion of the Senate.*

1 **SEC. 505. CAPITOL POWER PLANT CARBON DIOXIDE EMIS-**  
 2 **SIONS FEASIBILITY STUDY AND DEMONSTRA-**  
 3 **TION PROJECTS.**

4 *The first section of the Act of March 4, 1911 (2 U.S.C.*  
 5 *2162; 36 Stat. 1414, chapter 285) is amended in the seventh*  
 6 *undesignated paragraph (relating to the Capitol power*  
 7 *plant) under the heading “Public Buildings”, under the*  
 8 *heading “Under the Department of Interior”—*

9 *(1) by striking “ninety thousand dollars:” and*  
 10 *inserting “\$90,000.”; and*

11 *(2) by striking “Provided, That hereafter the”*  
 12 *and all that follows through the end of the proviso*  
 13 *and inserting the following:*

14 *“(a) DESIGNATION.—The heating, lighting, and power*  
 15 *plant constructed under the terms of the Act approved April*  
 16 *28, 1904 (33 Stat. 479, chapter 1762) shall be known as*  
 17 *the ‘Capitol Power Plant’.*

18 *“(b) DEFINITION.—In this section, the term ‘carbon di-*  
 19 *oxide energy efficiency’ means the quantity of electricity*  
 20 *used to power equipment for carbon dioxide capture and*  
 21 *storage or use.*

22 *“(c) FEASIBILITY STUDY.—The Architect of the Cap-*  
 23 *itol shall conduct a feasibility study evaluating the avail-*  
 24 *able methods to capture, store, and use carbon dioxide emit-*  
 25 *ted from the Capitol Power Plant as a result of burning*  
 26 *fossil fuels. In carrying out the feasibility study, the Archi-*

1 *Architect of the Capitol is encouraged to consult with individuals*  
 2 *with expertise in carbon capture and storage or use, includ-*  
 3 *ing experts with the Environmental Protection Agency, De-*  
 4 *partment of Energy, academic institutions, non-profit orga-*  
 5 *nizations, and industry, as appropriate. The study shall*  
 6 *consider—*

7           “(1) *the availability of technologies to capture*  
 8 *and store or use Capitol Power Plant carbon dioxide*  
 9 *emissions;*

10           “(2) *strategies to conserve energy and reduce car-*  
 11 *bon dioxide emissions at the Capitol Power Plant;*  
 12 *and*

13           “(3) *other factors as determined by the Architect*  
 14 *of the Capitol.*

15           “(d) *DEMONSTRATION PROJECTS.—*

16           “(1) *IN GENERAL.—If the feasibility study deter-*  
 17 *mines that a demonstration project to capture and*  
 18 *store or use Capitol Power Plant carbon dioxide emis-*  
 19 *sions is technologically feasible and economically jus-*  
 20 *tified (including direct and indirect economic and en-*  
 21 *vironmental benefits), the Architect of the Capitol*  
 22 *may conduct one or more demonstration projects to*  
 23 *capture and store or use carbon dioxide emitted from*  
 24 *the Capitol Power Plant as a result of burning fossil*  
 25 *fuels.*

1           “(2) *FACTORS FOR CONSIDERATION.*—*In car-*  
2           *rying out such demonstration projects, the Architect*  
3           *of the Capitol shall consider—*

4                   “(A) *the amount of Capitol Power Plant*  
5                   *carbon dioxide emissions to be captured and*  
6                   *stored or used;*

7                   “(B) *whether the proposed project is able to*  
8                   *reduce air pollutants other than carbon dioxide;*

9                   “(C) *the carbon dioxide energy efficiency of*  
10                  *the proposed project;*

11                  “(D) *whether the proposed project is able to*  
12                  *use carbon dioxide emissions;*

13                  “(E) *whether the proposed project could be*  
14                  *expanded to significantly increase the amount of*  
15                  *Capitol Power Plant carbon dioxide emissions to*  
16                  *be captured and stored or used;*

17                  “(F) *the potential environmental, energy,*  
18                  *and educational benefits of demonstrating the*  
19                  *capture and storage or use of carbon dioxide at*  
20                  *the U.S. Capitol; and*

21                  “(G) *other factors as determined by the Ar-*  
22                  *chitect of the Capitol.*

23           “(3) *TERMS AND CONDITIONS.*—*A demonstration*  
24           *project funded under this section shall be subject to*

1        *such terms and conditions as the Architect of the Cap-*  
 2        *itol may prescribe.*

3        “(e) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
 4        *authorized to be appropriated to carry out the feasibility*  
 5        *study and demonstration project \$3,000,000. Such sums*  
 6        *shall remain available until expended.”.*

7                    ***Subtitle B—Energy Savings***  
 8                    ***Performance Contracting***

9        ***SEC. 511. AUTHORITY TO ENTER INTO CONTRACTS; RE-***  
 10                    ***PORTS.***

11        (a) *IN GENERAL.—Section 801(a)(2)(D) of the Na-*  
 12        *tional Energy Conservation Policy Act (42 U.S.C.*  
 13        *8287(a)(2)(D)) is amended—*

14                    (1) *in clause (ii), by inserting “and” after the*  
 15        *semicolon at the end;*

16                    (2) *by striking clause (iii); and*

17                    (3) *by redesignating clause (iv) as clause (iii).*

18        (b) *REPORTS.—Section 548(a)(2) of the National En-*  
 19        *ergy Conservation Policy Act (42 U.S.C. 8258(a)(2)) is*  
 20        *amended by inserting “and any termination penalty expo-*  
 21        *sure” after “the energy and cost savings that have resulted*  
 22        *from such contracts”.*

23        (c) *CONFORMING AMENDMENT.—Section 2913 of title*  
 24        *10, United States Code, is amended by striking subsection*  
 25        *(e).*



1 **SEC. 512. FINANCING FLEXIBILITY.**

2       Section 801(a)(2) of the National Energy Conservation  
3 Policy Act (42 U.S.C. 8287(a)(2)) is amended by adding  
4 at the end the following:

5               “(E) FUNDING OPTIONS.—In carrying out a  
6 contract under this title, a Federal agency may  
7 use any combination of—

8                       “(i) appropriated funds; and

9                       “(ii) private financing under an en-  
10 ergy savings performance contract.”.

11 **SEC. 513. PROMOTING LONG-TERM ENERGY SAVINGS PER-**  
12 **FORMANCE CONTRACTS AND VERIFYING SAV-**  
13 **INGS.**

14       Section 801(a)(2) of the National Energy Conservation  
15 Policy Act (42 U.S.C. 8287(a)(2)) (as amended by section  
16 512) is amended—

17               (1) in subparagraph (D), by inserting “begin-  
18 ning on the date of the delivery order” after “25  
19 years”; and

20               (2) by adding at the end the following:

21               “(F) PROMOTION OF CONTRACTS.—In car-  
22 rying out this section, a Federal agency shall  
23 not—

24                       “(i) establish a Federal agency policy  
25 that limits the maximum contract term

1           *under subparagraph (D) to a period shorter*  
2           *than 25 years; or*

3           “(ii) *limit the total amount of obliga-*  
4           *tions under energy savings performance*  
5           *contracts or other private financing of en-*  
6           *ergy savings measures.*

7           “(G) *MEASUREMENT AND VERIFICATION RE-*  
8           *QUIREMENTS FOR PRIVATE FINANCING.—*

9           “(i) *IN GENERAL.—In the case of en-*  
10          *ergy savings performance contracts, the*  
11          *evaluations and savings measurement and*  
12          *verification required under paragraphs (2)*  
13          *and (4) of section 543(f) shall be used by a*  
14          *Federal agency to meet the requirements for*  
15          *the need for energy audits, calculation of*  
16          *energy savings, and any other evaluation of*  
17          *costs and savings needed to implement the*  
18          *guarantee of savings under this section.*

19          “(ii) *MODIFICATION OF EXISTING CON-*  
20          *TRACTS.—Not later than 18 months after*  
21          *the date of enactment of this subparagraph,*  
22          *each Federal agency shall, to the maximum*  
23          *extent practicable, modify any indefinite*  
24          *delivery and indefinite quantity energy sav-*  
25          *ings performance contracts, and other in-*

1           *definite delivery and indefinite quantity*  
 2           *contracts using private financing, to con-*  
 3           *form to the amendments made by subtitle B*  
 4           *of title V of the Energy Independence and*  
 5           *Security Act of 2007.”.*

6 **SEC. 514. PERMANENT REAUTHORIZATION.**

7           *Section 801 of the National Energy Conservation Pol-*  
 8           *icy Act (42 U.S.C. 8287) is amended by striking subsection*  
 9           *(c).*

10 **SEC. 515. DEFINITION OF ENERGY SAVINGS.**

11           *Section 804(2) of the National Energy Conservation*  
 12           *Policy Act (42 U.S.C. 8287c(2)) is amended—*

13                   *(1) by redesignating subparagraphs (A), (B),*  
 14                   *and (C) as clauses (i), (ii), and (iii), respectively,*  
 15                   *and indenting appropriately;*

16                   *(2) by striking “means a reduction” and insert-*  
 17                   *ing “means—*

18                           *“(A) a reduction”;*

19                   *(3) by striking the period at the end and insert-*  
 20                   *ing a semicolon; and*

21                   *(4) by adding at the end the following:*

22                           *“(B) the increased efficient use of an exist-*  
 23                   *ing energy source by cogeneration or heat recov-*  
 24                   *ery;*

1           “(C) if otherwise authorized by Federal or  
 2           State law (including regulations), the sale or  
 3           transfer of electrical or thermal energy generated  
 4           on-site from renewable energy sources or cogen-  
 5           eration, but in excess of Federal needs, to utili-  
 6           ties or non-Federal energy users; and

7           “(D) the increased efficient use of existing  
 8           water sources in interior or exterior applica-  
 9           tions.”.

10 **SEC. 516. RETENTION OF SAVINGS.**

11           Section 546(c) of the National Energy Conservation  
 12           Policy Act (42 U.S.C. 8256(c)) is amended by striking  
 13           paragraph (5).

14 **SEC. 517. TRAINING FEDERAL CONTRACTING OFFICERS TO**  
 15                   **NEGOTIATE ENERGY EFFICIENCY CON-**  
 16                   **TRACTS.**

17           (a) PROGRAM.—The Secretary shall create and admin-  
 18           ister in the Federal Energy Management Program a train-  
 19           ing program to educate Federal contract negotiation and  
 20           contract management personnel so that the contract officers  
 21           are prepared to—

22                   (1) negotiate energy savings performance con-  
 23           tracts;

1           (2) *conclude effective and timely contracts for en-*  
2           *ergy efficiency services with all companies offering en-*  
3           *ergy efficiency services; and*

4           (3) *review Federal contracts for all products and*  
5           *services for the potential energy efficiency opportuni-*  
6           *ties and implications of the contracts.*

7           (b) *SCHEDULE.—Not later than 1 year after the date*  
8           *of enactment of this Act, the Secretary shall plan, staff, an-*  
9           *nounce, and begin training under the Federal Energy Man-*  
10          *agement Program.*

11          (c) *PERSONNEL TO BE TRAINED.—Personnel appro-*  
12          *priate to receive training under the Federal Energy Man-*  
13          *agement Program shall be selected by and sent for the train-*  
14          *ing from—*

15               (1) *the Department of Defense;*

16               (2) *the Department of Veterans Affairs;*

17               (3) *the Department;*

18               (4) *the General Services Administration;*

19               (5) *the Department of Housing and Urban De-*  
20          *velopment;*

21               (6) *the United States Postal Service; and*

22               (7) *all other Federal agencies and departments*  
23          *that enter contracts for buildings, building services,*  
24          *electricity and electricity services, natural gas and*  
25          *natural gas services, heating and air conditioning*

1        *services, building fuel purchases, and other types of*  
2        *procurement or service contracts determined by the*  
3        *Secretary, in carrying out the Federal Energy Man-*  
4        *agement Program, to offer the potential for energy*  
5        *savings and greenhouse gas emission reductions if ne-*  
6        *gotiated with taking into account those goals.*

7        *(d) TRAINERS.—Training under the Federal Energy*  
8        *Management Program may be conducted by—*

9                *(1) attorneys or contract officers with experience*  
10              *in negotiating and managing contracts described in*  
11              *subsection (c)(7) from any agency, except that the*  
12              *Secretary shall reimburse the related salaries and ex-*  
13              *penses of the attorneys or contract officers from*  
14              *amounts made available for carrying out this section*  
15              *to the extent the attorneys or contract officers are not*  
16              *employees of the Department; and*

17              *(2) private experts hired by the Secretary for the*  
18              *purposes of this section, except that the Secretary may*  
19              *not hire experts who are simultaneously employed by*  
20              *any company under contract to provide energy effi-*  
21              *ciency services to the Federal Government.*

22        *(e) AUTHORIZATION OF APPROPRIATIONS.—There are*  
23        *authorized to be appropriated to the Secretary to carry out*  
24        *this section \$750,000 for each of fiscal years 2008 through*  
25        *2012.*

1 **SEC. 518. STUDY OF ENERGY AND COST SAVINGS IN NON-**  
 2 **BUILDING APPLICATIONS.**

3 (a) *DEFINITIONS.—In this section:*

4 (1) *NONBUILDING APPLICATION.—The term*  
 5 *“nonbuilding application” means—*

6 (A) *any class of vehicles, devices, or equip-*  
 7 *ment that is transportable under the power of the*  
 8 *applicable vehicle, device, or equipment by land,*  
 9 *sea, or air and that consumes energy from any*  
 10 *fuel source for the purpose of—*

11 (i) *that transportation; or*

12 (ii) *maintaining a controlled environ-*  
 13 *ment within the vehicle, device, or equip-*  
 14 *ment; and*

15 (B) *any federally-owned equipment used to*  
 16 *generate electricity or transport water.*

17 (2) *SECONDARY SAVINGS.—*

18 (A) *IN GENERAL.—The term “secondary*  
 19 *savings” means additional energy or cost savings*  
 20 *that are a direct consequence of the energy sav-*  
 21 *ings that result from the energy efficiency im-*  
 22 *provements that were financed and implemented*  
 23 *pursuant to an energy savings performance con-*  
 24 *tract.*

25 (B) *INCLUSIONS.—The term “secondary*  
 26 *savings” includes—*

1                   (i) *energy and cost savings that result*  
2                   *from a reduction in the need for fuel deliv-*  
3                   *ery and logistical support;*

4                   (ii) *personnel cost savings and envi-*  
5                   *ronmental benefits; and*

6                   (iii) *in the case of electric generation*  
7                   *equipment, the benefits of increased effi-*  
8                   *ciency in the production of electricity, in-*  
9                   *cluding revenues received by the Federal*  
10                  *Government from the sale of electricity so*  
11                  *produced.*

12               (b) *STUDY.*—

13               (1) *IN GENERAL.*—*As soon as practicable after*  
14               *the date of enactment of this Act, the Secretary and*  
15               *the Secretary of Defense shall jointly conduct, and*  
16               *submit to Congress and the President a report of, a*  
17               *study of the potential for the use of energy savings*  
18               *performance contracts to reduce energy consumption*  
19               *and provide energy and cost savings in nonbuilding*  
20               *applications.*

21               (2) *REQUIREMENTS.*—*The study under this sub-*  
22               *section shall include—*

23                   (A) *an estimate of the potential energy and*  
24                   *cost savings to the Federal Government, includ-*



ing secondary savings and benefits, from increased efficiency in nonbuilding applications;

(B) an assessment of the feasibility of extending the use of energy savings performance contracts to nonbuilding applications, including an identification of any regulatory or statutory barriers to that use; and

(C) such recommendations as the Secretary and Secretary of Defense determine to be appropriate.

## ***Subtitle C—Energy Efficiency in Federal Agencies***

### ***SEC. 521. INSTALLATION OF PHOTOVOLTAIC SYSTEM AT DEPARTMENT OF ENERGY HEADQUARTERS BUILDING.***

(a) *IN GENERAL.*—The Administrator of General Services shall install a photovoltaic system, as set forth in the Sun Wall Design Project, for the headquarters building of the Department located at 1000 Independence Avenue, SW., Washington, DC, commonly known as the Forrestal Building.

(b) *FUNDING.*—There shall be available from the Federal Buildings Fund established by section 592 of title 40, United States Code, \$30,000,000 to carry out this section. Such sums shall be derived from the unobligated balance

1 of amounts made available from the Fund for fiscal year  
 2 2007, and prior fiscal years, for repairs and alternations  
 3 and other activities (excluding amounts made available for  
 4 the energy program). Such sums shall remain available  
 5 until expended.

6 **SEC. 522. PROHIBITION ON INCANDESCENT LAMPS BY**  
 7 **COAST GUARD.**

8 (a) *PROHIBITION.*—Except as provided by subsection  
 9 (b), on and after January 1, 2009, a general service incan-  
 10 descent lamp shall not be purchased or installed in a Coast  
 11 Guard facility by or on behalf of the Coast Guard.

12 (b) *EXCEPTION.*—A general service incandescent lamp  
 13 may be purchased, installed, and used in a Coast Guard  
 14 facility whenever the application of a general service incan-  
 15 descent lamp is—

16 (1) necessary due to purpose or design, including  
 17 medical, security, and industrial applications;

18 (2) reasonable due to the architectural or histor-  
 19 ical value of a light fixture installed before January  
 20 1, 2009; or

21 (3) the Commandant of the Coast Guard deter-  
 22 mines that operational requirements necessitate the  
 23 use of a general service incandescent lamp.

24 (c) *LIMITATION.*—In this section, the term “facility”  
 25 does not include a vessel or aircraft of the Coast Guard.

1 **SEC. 523. STANDARD RELATING TO SOLAR HOT WATER**  
 2 **HEATERS.**

3 *Section 305(a)(3)(A) of the Energy Conservation and*  
 4 *Production Act (42 U.S.C. 6834(a)(3)(A)) is amended—*

5 *(1) in clause (i)(II), by striking “and” at the*  
 6 *end;*

7 *(2) in clause (ii), by striking the period at the*  
 8 *end and inserting “; and”; and*

9 *(3) by adding at the end the following:*

10 *“(iii) if lifecycle cost-effective, as com-*  
 11 *pared to other reasonably available tech-*  
 12 *nologies, not less than 30 percent of the hot*  
 13 *water demand for each new Federal build-*  
 14 *ing or Federal building undergoing a major*  
 15 *renovation be met through the installation*  
 16 *and use of solar hot water heaters.”.*

17 **SEC. 524. FEDERALLY-PROCURED APPLIANCES WITH**  
 18 **STANDBY POWER.**

19 *Section 553 of the National Energy Conservation Pol-*  
 20 *icy Act (42 U.S.C. 8259b) is amended—*

21 *(1) by redesignating subsection (e) as subsection*  
 22 *(f); and*

23 *(2) by inserting after subsection (d) the fol-*  
 24 *lowing:*

25 *“(e) FEDERALLY-PROCURED APPLIANCES WITH*  
 26 *STANDBY POWER.—*

1           “(1) *DEFINITION OF ELIGIBLE PRODUCT.*—In  
 2           this subsection, the term ‘eligible product’ means a  
 3           commercially available, off-the-shelf product that—

4                       “(A)(i) uses external standby power devices;  
 5                       or

6                       “(ii) contains an internal standby power  
 7                       function; and

8                       “(B) is included on the list compiled under  
 9                       paragraph (4).

10           “(2) *FEDERAL PURCHASING REQUIREMENT.*—  
 11           Subject to paragraph (3), if an agency purchases an  
 12           eligible product, the agency shall purchase—

13                       “(A) an eligible product that uses not more  
 14                       than 1 watt in the standby power consuming  
 15                       mode of the eligible product; or

16                       “(B) if an eligible product described in sub-  
 17                       paragraph (A) is not available, the eligible prod-  
 18                       uct with the lowest available standby power  
 19                       wattage in the standby power consuming mode of  
 20                       the eligible product.

21           “(3) *LIMITATION.*—The requirements of para-  
 22           graph (2) shall apply to a purchase by an agency  
 23           only if—

24                       “(A) the lower-wattage eligible product is—

25                               “(i) lifecycle cost-effective; and

1 “(ii) practicable; and

2 “(B) the utility and performance of the eli-  
3 gible product is not compromised by the lower  
4 wattage requirement.

5 “(4) *ELIGIBLE PRODUCTS.*—The Secretary, in  
6 consultation with the Secretary of Defense, the Ad-  
7 ministrator of the Environmental Protection Agency,  
8 and the Administrator of General Services, shall com-  
9 pile a publicly accessible list of cost-effective eligible  
10 products that shall be subject to the purchasing re-  
11 quirements of paragraph (2).”.

12 **SEC. 525. FEDERAL PROCUREMENT OF ENERGY EFFICIENT**  
13 **PRODUCTS.**

14 (a) *AMENDMENTS.*—Section 553 of the National En-  
15 ergy Conservation Policy Act (42 U.S.C. 8259b) is  
16 amended—

17 (1) in subsection (b)(1), by inserting “in a prod-  
18 uct category covered by the Energy Star program or  
19 the Federal Energy Management Program for des-  
20 ignated products” after “energy consuming product”;  
21 and

22 (2) in the second sentence of subsection (c)—

23 (A) by inserting “list in their catalogues,  
24 represent as available, and” after “Logistics  
25 Agency shall”; and

1                   (B) by striking “where the agency” and in-  
 2                   serting “in which the head of the agency”.

3           (b) *CATALOGUE LISTING DEADLINE.*—Not later than  
 4   9 months after the date of enactment of this Act, the General  
 5   Services Administration and the Defense Logistics Agency  
 6   shall ensure that the requirement established by the amend-  
 7   ment made by subsection (a)(2)(A) has been fully complied  
 8   with.

9   **SEC. 526. PROCUREMENT AND ACQUISITION OF ALTER-**  
 10                   **NATIVE FUELS.**

11       No Federal agency shall enter into a contract for pro-  
 12   curement of an alternative or synthetic fuel, including a  
 13   fuel produced from nonconventional petroleum sources, for  
 14   any mobility-related use, other than for research or testing,  
 15   unless the contract specifies that the lifecycle greenhouse gas  
 16   emissions associated with the production and combustion  
 17   of the fuel supplied under the contract must, on an ongoing  
 18   basis, be less than or equal to such emissions from the equiv-  
 19   alent conventional fuel produced from conventional petro-  
 20   leum sources.

21   **SEC. 527. GOVERNMENT EFFICIENCY STATUS REPORTS.**

22       (a) *IN GENERAL.*—Each Federal agency subject to any  
 23   of the requirements of this title or the amendments made  
 24   by this title shall compile and submit to the Director of

1 *the Office of Management and Budget an annual Govern-*  
2 *ment efficiency status report on—*

3 *(1) compliance by the agency with each of the re-*  
4 *quirements of this title and the amendments made by*  
5 *this title;*

6 *(2) the status of the implementation by the agen-*  
7 *cy of initiatives to improve energy efficiency, reduce*  
8 *energy costs, and reduce emissions of greenhouse*  
9 *gases; and*

10 *(3) savings to the taxpayers of the United States*  
11 *resulting from mandated improvements under this*  
12 *title and the amendments made by this title*

13 *(b) SUBMISSION.—The report shall be submitted—*

14 *(1) to the Director at such time as the Director*  
15 *requires;*

16 *(2) in electronic, not paper, format; and*

17 *(3) consistent with related reporting require-*  
18 *ments.*

19 **SEC. 528. OMB GOVERNMENT EFFICIENCY REPORTS AND**  
20 **SCORECARDS.**

21 *(a) REPORTS.—Not later than April 1 of each year,*  
22 *the Director of the Office of Management and Budget shall*  
23 *submit an annual Government efficiency report to the Com-*  
24 *mittee on Oversight and Government Reform of the House*

1 *of Representatives and the Committee on Governmental Af-*  
 2 *fairs of the Senate, which shall contain—*

3           (1) *a summary of the information reported by*  
 4 *agencies under section 527;*

5           (2) *an evaluation of the overall progress of the*  
 6 *Federal Government toward achieving the goals of*  
 7 *this title and the amendments made by this title; and*

8           (3) *recommendations for additional actions nec-*  
 9 *essary to meet the goals of this title and the amend-*  
 10 *ments made by this title.*

11       (b) *SCORECARDS.—The Director of the Office of Man-*  
 12 *agement and Budget shall include in any annual energy*  
 13 *scorecard the Director is otherwise required to submit a de-*  
 14 *scription of the compliance of each agency with the require-*  
 15 *ments of this title and the amendments made by this title.*

16 **SEC. 529. ELECTRICITY SECTOR DEMAND RESPONSE.**

17       (a) *IN GENERAL.—Title V of the National Energy*  
 18 *Conservation Policy Act (42 U.S.C. 8241 et seq.) is amend-*  
 19 *ed by adding at the end the following:*

20           **“PART 5—PEAK DEMAND REDUCTION**

21 **“SEC. 571. NATIONAL ACTION PLAN FOR DEMAND RE-**  
 22 **SPONSE.**

23       “(a) *NATIONAL ASSESSMENT AND REPORT.—The Fed-*  
 24 *eral Energy Regulatory Commission (‘Commission’) shall*  
 25 *conduct a National Assessment of Demand Response. The*



1 *Commission shall, within 18 months of the date of enact-*  
 2 *ment of this part, submit a report to Congress that includes*  
 3 *each of the following:*

4           “(1) *Estimation of nationwide demand response*  
 5 *potential in 5 and 10 year horizons, including data*  
 6 *on a State-by-State basis, and a methodology for up-*  
 7 *dates of such estimates on an annual basis.*

8           “(2) *Estimation of how much of this potential*  
 9 *can be achieved within 5 and 10 years after the en-*  
 10 *actment of this part accompanied by specific policy*  
 11 *recommendations that if implemented can achieve the*  
 12 *estimated potential. Such recommendations shall in-*  
 13 *clude options for funding and/or incentives for the de-*  
 14 *velopment of demand response resources.*

15           “(3) *The Commission shall further note any bar-*  
 16 *riers to demand response programs offering flexible,*  
 17 *non-discriminatory, and fairly compensatory terms*  
 18 *for the services and benefits made available, and shall*  
 19 *provide recommendations for overcoming such bar-*  
 20 *riers.*

21           “(4) *The Commission shall seek to take advan-*  
 22 *tage of preexisting research and ongoing work, and*  
 23 *shall insure that there is no duplication of effort.*

24           “(b) *NATIONAL ACTION PLAN ON DEMAND RE-*  
 25 *SPONSE.—The Commission shall further develop a National*

1 *Action Plan on Demand Response, soliciting and accepting*  
 2 *input and participation from a broad range of industry*  
 3 *stakeholders, State regulatory utility commissioners, and*  
 4 *non-governmental groups. The Commission shall seek con-*  
 5 *sensus where possible, and decide on optimum solutions to*  
 6 *issues that defy consensus. Such Plan shall be completed*  
 7 *within one year after the completion of the National Assess-*  
 8 *ment of Demand Response, and shall meet each of the fol-*  
 9 *lowing objectives:*

10           “(1) *Identification of requirements for technical*  
 11           *assistance to States to allow them to maximize the*  
 12           *amount of demand response resources that can be de-*  
 13           *veloped and deployed.*

14           “(2) *Design and identification of requirements*  
 15           *for implementation of a national communications*  
 16           *program that includes broad-based customer edu-*  
 17           *cation and support.*

18           “(3) *Development or identification of analytical*  
 19           *tools, information, model regulatory provisions, model*  
 20           *contracts, and other support materials for use by cus-*  
 21           *tomers, states, utilities and demand response pro-*  
 22           *viders.*

23           “(c) *Upon completion, the National Action Plan on*  
 24           *Demand Response shall be published, together with any fa-*  
 25           *vorable and dissenting comments submitted by participants*

1 *in its preparation. Six months after publication, the Com-*  
 2 *mission, together with the Secretary of Energy, shall submit*  
 3 *to Congress a proposal to implement the Action Plan, in-*  
 4 *cluding specific proposed assignments of responsibility, pro-*  
 5 *posed budget amounts, and any agreements secured for par-*  
 6 *ticipation from State and other participants.*

7 “(d) *AUTHORIZATION.—There are authorized to be ap-*  
 8 *propriated to the Commission to carry out this section not*  
 9 *more than \$10,000,000 for each of the fiscal years 2008,*  
 10 *2009, and 2010.”.*

11 (b) *TABLE OF CONTENTS.—The table of contents for*  
 12 *the National Energy Conservation Policy Act (42 U.S.C.*  
 13 *8201 note) is amended by adding after the items relating*  
 14 *to part 4 of title V the following:*

*“PART 5—PEAK DEMAND REDUCTION*

*“Sec. 571. National Action Plan for Demand Response.”.*

15 ***Subtitle D—Energy Efficiency of***  
 16 ***Public Institutions***

17 ***SEC. 531. REAUTHORIZATION OF STATE ENERGY PRO-***  
 18 ***GRAMS.***

19 *Section 365(f) of the Energy Policy and Conservation*  
 20 *Act (42 U.S.C. 6325(f)) is amended by striking*  
 21 *“\$100,000,000 for each of the fiscal years 2006 and 2007*  
 22 *and \$125,000,000 for fiscal year 2008” and inserting*  
 23 *“\$125,000,000 for each of fiscal years 2007 through 2012”.*

1 **SEC. 532. UTILITY ENERGY EFFICIENCY PROGRAMS.**

2       (a) *ELECTRIC UTILITIES.*—Section 111(d) of the Pub-  
 3 *lic Utility Regulatory Policies Act of 1978 (16 U.S.C.*  
 4 *2621(d)) is amended by adding at the end the following:*

5               “(16) *INTEGRATED RESOURCE PLANNING.*—Each  
 6 *electric utility shall—*

7                       “(A) *integrate energy efficiency resources*  
 8 *into utility, State, and regional plans; and*

9                       “(B) *adopt policies establishing cost-effective*  
 10 *energy efficiency as a priority resource.*

11               “(17) *RATE DESIGN MODIFICATIONS TO PRO-*  
 12 *MOTE ENERGY EFFICIENCY INVESTMENTS.*—

13                       “(A) *IN GENERAL.*—The rates allowed to be  
 14 *charged by any electric utility shall—*

15                               “(i) *align utility incentives with the*  
 16 *delivery of cost-effective energy efficiency;*  
 17 *and*

18                               “(ii) *promote energy efficiency invest-*  
 19 *ments.*

20               “(B) *POLICY OPTIONS.*—In complying with  
 21 *subparagraph (A), each State regulatory author-*  
 22 *ity and each nonregulated utility shall*  
 23 *consider—*

24                               “(i) *removing the throughput incentive*  
 25 *and other regulatory and management dis-*  
 26 *incentives to energy efficiency;*

1           “(ii) providing utility incentives for  
2           the successful management of energy effi-  
3           ciency programs;

4           “(iii) including the impact on adop-  
5           tion of energy efficiency as 1 of the goals of  
6           retail rate design, recognizing that energy  
7           efficiency must be balanced with other objec-  
8           tives;

9           “(iv) adopting rate designs that en-  
10          courage energy efficiency for each customer  
11          class;

12          “(v) allowing timely recovery of energy  
13          efficiency-related costs; and

14          “(vi) offering home energy audits, of-  
15          fering demand response programs, publi-  
16          cizing the financial and environmental ben-  
17          efits associated with making home energy  
18          efficiency improvements, and educating  
19          homeowners about all existing Federal and  
20          State incentives, including the availability  
21          of low-cost loans, that make energy effi-  
22          ciency improvements more affordable.”.

23          (b) *NATURAL GAS UTILITIES*.—Section 303(b) of the  
24          *Public Utility Regulatory Policies Act of 1978 (15 U.S.C.*  
25          *3203(b))* is amended by adding at the end the following:

1           “(5) *ENERGY EFFICIENCY.—Each natural gas*  
 2           *utility shall—*

3                   “(A) *integrate energy efficiency resources*  
 4                   *into the plans and planning processes of the nat-*  
 5                   *ural gas utility; and*

6                   “(B) *adopt policies that establish energy ef-*  
 7                   *iciency as a priority resource in the plans and*  
 8                   *planning processes of the natural gas utility.*

9           “(6) *RATE DESIGN MODIFICATIONS TO PROMOTE*  
 10           *ENERGY EFFICIENCY INVESTMENTS.—*

11                   “(A) *IN GENERAL.—The rates allowed to be*  
 12                   *charged by a natural gas utility shall align util-*  
 13                   *ity incentives with the deployment of cost-effec-*  
 14                   *tive energy efficiency.*

15                   “(B) *POLICY OPTIONS.—In complying with*  
 16                   *subparagraph (A), each State regulatory author-*  
 17                   *ity and each nonregulated utility shall*  
 18                   *consider—*

19                           “(i) *separating fixed-cost revenue re-*  
 20                           *covery from the volume of transportation or*  
 21                           *sales service provided to the customer;*

22                           “(ii) *providing to utilities incentives*  
 23                           *for the successful management of energy effi-*  
 24                           *ciency programs, such as allowing utilities*

1           to retain a portion of the cost-reducing ben-  
2           efits accruing from the programs;

3           “(iii) promoting the impact on adop-  
4           tion of energy efficiency as 1 of the goals of  
5           retail rate design, recognizing that energy  
6           efficiency must be balanced with other objec-  
7           tives; and

8           “(iv) adopting rate designs that en-  
9           courage energy efficiency for each customer  
10          class.

11          For purposes of applying the provisions of this  
12          subtitle to this paragraph, any reference in this  
13          subtitle to the date of enactment of this Act shall  
14          be treated as a reference to the date of enactment  
15          of this paragraph.”.

16          (c) CONFORMING AMENDMENT.—Section 303(a) of the  
17          Public Utility Regulatory Policies Act of 1978 U.S.C.  
18          3203(a)) is amended by striking “and (4)” inserting “(4),  
19          (5), and (6)”.

## 20       **Subtitle E—Energy Efficiency and** 21       **Conservation Block Grants**

### 22       **SEC. 541. DEFINITIONS.**

23          In this subtitle:

24               (1) ELIGIBLE ENTITY.—The term “eligible enti-  
25          ty” means—

1                   (A) a State;

2                   (B) an eligible unit of local government;

3                   and

4                   (C) an Indian tribe.

5                   (2) *ELIGIBLE UNIT OF LOCAL GOVERNMENT.*—

6                   The term “eligible unit of local government” means—

7                   (A) an eligible unit of local government-al-  
8                   ternative 1; and

9                   (B) an eligible unit of local government-al-  
10                  ternative 2.

11                  (3)(A) *ELIGIBLE UNIT OF LOCAL GOVERNMENT-*  
12                  *ALTERNATIVE 1.*—The term “eligible unit of local gov-  
13                  ernment-alternative 1” means—

14                  (i) a city with a population—

15                         (I) of at least 35,000; or

16                         (II) that causes the city to be 1 of the  
17                         10 highest-populated cities of the State in  
18                         which the city is located; and

19                  (ii) a county with a population—

20                         (I) of at least 200,000; or

21                         (II) that causes the county to be 1 of  
22                         the 10 highest-populated counties of the  
23                         State in which the county is located.



1           (B) *ELIGIBLE UNIT OF LOCAL GOVERNMENT-AL-*  
 2           *TERNATIVE 2.*—The term “eligible unit of local gov-  
 3           *ernment-alternative 2*” means—

4                   (i) a city with a population of at least  
 5                   50,000; or

6                   (ii) a county with a population of at least  
 7                   200,000.

8           (4) *INDIAN TRIBE.*—The term “Indian tribe” has  
 9           the meaning given the term in section 4 of the Indian  
 10          *Self- Determination and Education Assistance Act*  
 11          (25 U.S.C. 450b).

12          (5) *PROGRAM.*—The term “program” means the  
 13          *Energy Efficiency and Conservation Block Grant*  
 14          *Program established under section 542(a).*

15          (6) *STATE.*—The term “State” means—  
 16                   (A) a State;  
 17                   (B) the District of Columbia;  
 18                   (C) the Commonwealth of Puerto Rico; and  
 19                   (D) any other territory or possession of the  
 20          United States.

21   **SEC. 542. ENERGY EFFICIENCY AND CONSERVATION BLOCK**  
 22           **GRANT PROGRAM.**

23          (a) *ESTABLISHMENT.*—The Secretary shall establish a  
 24          program, to be known as the “Energy Efficiency and Con-  
 25          servation Block Grant Program”, under which the Sec-

1    *retary shall provide grants to eligible entities in accordance*  
 2    *with this subtitle.*

3            (b) *PURPOSE.*—*The purpose of the program shall be*  
 4    *to assist eligible entities in implementing strategies—*

5                    (1) *to reduce fossil fuel emissions created as a re-*  
 6                    *sult of activities within the jurisdictions of eligible*  
 7                    *entities in manner that—*

8                            (A) *is environmentally sustainable; and*

9                            (B) *to the maximum extent practicable,*  
 10                    *maximizes benefits for local and regional com-*  
 11                    *munities;*

12                    (2) *to reduce the total energy use of the eligible*  
 13                    *entities; and*

14                    (3) *to improve energy efficiency in—*

15                            (A) *the transportation sector;*

16                            (B) *the building sector; and*

17                            (C) *other appropriate sectors.*

18    **SEC. 543. ALLOCATION OF FUNDS.**

19            (a) *IN GENERAL.*—*Of amounts made available to pro-*  
 20    *vide grants under this subtitle for each fiscal year, the Sec-*  
 21    *retary shall allocate—*

22                    (1) *68 percent to eligible units of local govern-*  
 23                    *ment in accordance with subsection (b);*

24                    (2) *28 percent to States in accordance with sub-*  
 25                    *section (c);*

1           (3) 2 percent to Indian tribes in accordance with  
2           subsection (d); and

3           (4) 2 percent for competitive grants under sec-  
4           tion 546.

5           (b) *ELIGIBLE UNITS OF LOCAL GOVERNMENT.*—Of  
6           amounts available for distribution to eligible units of local  
7           government under subsection (a)(1), the Secretary shall pro-  
8           vide grants to eligible units of local government under this  
9           section based on a formula established by the Secretary ac-  
10          cording to—

11           (1) the populations served by the eligible units of  
12           local government, according to the latest available de-  
13           cennial census; and

14           (2) the daytime populations of the eligible units  
15           of local government and other similar factors (such as  
16           square footage of commercial, office, and industrial  
17           space), as determined by the Secretary.

18           (c) *STATES.*—Of amounts available for distribution to  
19           States under subsection (a)(2), the Secretary shall  
20           provide—

21           (1) not less than 1.25 percent to each State; and

22           (2) the remainder among the States, based on a  
23           formula to be established by the Secretary that takes  
24           into account—

25           (A) the population of each State; and

1                   (B) any other criteria that the Secretary de-  
 2                   termines to be appropriate.

3           (d) *INDIAN TRIBES*.—Of amounts available for dis-  
 4           tribution to Indian tribes under subsection (a)(3), the Sec-  
 5           retary shall establish a formula for allocation of the  
 6           amounts to Indian tribes, taking into account any factors  
 7           that the Secretary determines to be appropriate.

8           (e) *PUBLICATION OF ALLOCATION FORMULAS*.—Not  
 9           later than 90 days before the beginning of each fiscal year  
 10          for which grants are provided under this subtitle, the Sec-  
 11          retary shall publish in the Federal Register the formulas  
 12          for allocation established under this section.

13          (f) *STATE AND LOCAL ADVISORY COMMITTEE*.—The  
 14          Secretary shall establish a State and local advisory com-  
 15          mittee to advise the Secretary regarding administration,  
 16          implementation, and evaluation of the program.

17   **SEC. 544. USE OF FUNDS.**

18          An eligible entity may use a grant received under this  
 19          subtitle to carry out activities to achieve the purposes of  
 20          the program, including—

21               (1) development and implementation of an en-  
 22               ergy efficiency and conservation strategy under sec-  
 23               tion 545(b);

1           (2) *retaining technical consultant services to as-*  
2           *sist the eligible entity in the development of such a*  
3           *strategy, including—*

4                   (A) *formulation of energy efficiency, energy*  
5                   *conservation, and energy usage goals;*

6                   (B) *identification of strategies to achieve*  
7                   *those goals—*

8                           (i) *through efforts to increase energy ef-*  
9                           *iciency and reduce energy consumption;*  
10                          *and*

11                           (ii) *by encouraging behavioral changes*  
12                           *among the population served by the eligible*  
13                           *entity;*

14                   (C) *development of methods to measure*  
15                   *progress in achieving the goals;*

16                   (D) *development and publication of annual*  
17                   *reports to the population served by the eligible*  
18                   *entity describing—*

19                           (i) *the strategies and goals; and*

20                           (ii) *the progress made in achieving the*  
21                           *strategies and goals during the preceding*  
22                           *calendar year; and*

23                   (E) *other services to assist in the implemen-*  
24                   *tation of the energy efficiency and conservation*  
25                   *strategy;*

1           (3) *conducting residential and commercial build-*  
2           *ing energy audits;*

3           (4) *establishment of financial incentive programs*  
4           *for energy efficiency improvements;*

5           (5) *the provision of grants to nonprofit organiza-*  
6           *tions and governmental agencies for the purpose of*  
7           *performing energy efficiency retrofits;*

8           (6) *development and implementation of energy*  
9           *efficiency and conservation programs for buildings*  
10          *and facilities within the jurisdiction of the eligible en-*  
11          *tity, including—*

12                   (A) *design and operation of the programs;*

13                   (B) *identifying the most effective methods*  
14                   *for achieving maximum participation and effi-*  
15                   *ciency rates;*

16                   (C) *public education;*

17                   (D) *measurement and verification protocols;*

18                   *and*

19                   (E) *identification of energy efficient tech-*  
20                   *nologies;*

21           (7) *development and implementation of pro-*  
22           *grams to conserve energy used in transportation,*  
23           *including—*

24                   (A) *use of flex time by employers;*

25                   (B) *satellite work centers;*

1           (C) development and promotion of zoning  
2           guidelines or requirements that promote energy  
3           efficient development;

4           (D) development of infrastructure, such as  
5           bike lanes and pathways and pedestrian walk-  
6           ways;

7           (E) synchronization of traffic signals; and

8           (F) other measures that increase energy effi-  
9           ciency and decrease energy consumption;

10          (8) development and implementation of building  
11          codes and inspection services to promote building en-  
12          ergy efficiency;

13          (9) application and implementation of energy  
14          distribution technologies that significantly increase  
15          energy efficiency, including—

16               (A) distributed resources; and

17               (B) district heating and cooling systems;

18          (10) activities to increase participation and effi-  
19          ciency rates for material conservation programs, in-  
20          cluding source reduction, recycling, and recycled con-  
21          tent procurement programs that lead to increases in  
22          energy efficiency;

23          (11) the purchase and implementation of tech-  
24          nologies to reduce, capture, and, to the maximum ex-

1        *tent practicable, use methane and other greenhouse*  
 2        *gases generated by landfills or similar sources;*

3            (12) *replacement of traffic signals and street*  
 4        *lighting with energy efficient lighting technologies,*  
 5        *including—*

6            (A) *light emitting diodes; and*

7            (B) *any other technology of equal or greater*  
 8        *energy efficiency;*

9            (13) *development, implementation, and installa-*  
 10       *tion on or in any government building of the eligible*  
 11       *entity of onsite renewable energy technology that gen-*  
 12       *erates electricity from renewable resources,*  
 13       *including—*

14           (A) *solar energy;*

15           (B) *wind energy;*

16           (C) *fuel cells; and*

17           (D) *biomass; and*

18           (14) *any other appropriate activity, as deter-*  
 19       *mined by the Secretary, in consultation with—*

20           (A) *the Administrator of the Environmental*  
 21       *Protection Agency;*

22           (B) *the Secretary of Transportation; and*

23           (C) *the Secretary of Housing and Urban*  
 24       *Development.*



1 **SEC. 545. REQUIREMENTS FOR ELIGIBLE ENTITIES.**

2 (a) *CONSTRUCTION REQUIREMENT.*—

3 (1) *IN GENERAL.*—*To be eligible to receive a*  
 4 *grant under the program, each eligible applicant shall*  
 5 *submit to the Secretary a written assurance that all*  
 6 *laborers and mechanics employed by any contractor*  
 7 *or subcontractor of the eligible entity during any con-*  
 8 *struction, alteration, or repair activity funded, in*  
 9 *whole or in part, by the grant shall be paid wages at*  
 10 *rates not less than the prevailing wages for similar*  
 11 *construction activities in the locality, as determined*  
 12 *by the Secretary of Labor, in accordance with sections*  
 13 *3141 through 3144, 3146, and 3147 of title 40,*  
 14 *United States Code.*

15 (2) *SECRETARY OF LABOR.*—*With respect to the*  
 16 *labor standards referred to in paragraph (1), the Sec-*  
 17 *retary of Labor shall have the authority and functions*  
 18 *described in—*

19 (A) *Reorganization Plan Numbered 14 of*  
 20 *1950 (5 U.S.C. 903 note); and*

21 (B) *section 3145 of title 40, United States*  
 22 *Code.*

23 (b) *ELIGIBLE UNITS OF LOCAL GOVERNMENT AND IN-*  
 24 *DIAN TRIBES.*—

25 (1) *PROPOSED STRATEGY.*—

1           (A) *IN GENERAL.*—Not later than 1 year  
 2           after the date on which an eligible unit of local  
 3           government or Indian tribe receives a grant  
 4           under this subtitle, the eligible unit of local gov-  
 5           ernment or Indian tribe shall submit to the Sec-  
 6           retary a proposed energy efficiency and con-  
 7           servation strategy in accordance with this para-  
 8           graph.

9           (B) *INCLUSIONS.*—The proposed strategy  
 10          under subparagraph (A) shall include—

11               (i) a description of the goals of the eli-  
 12               gible unit of local government or Indian  
 13               tribe, in accordance with the purposes of  
 14               this subtitle, for increased energy efficiency  
 15               and conservation in the jurisdiction of the  
 16               eligible unit of local government or Indian  
 17               tribe; and

18               (ii) a plan for the use of the grant to  
 19               assist the eligible unit of local government  
 20               or Indian tribe in achieving those goals, in  
 21               accordance with section 544.

22          (C) *REQUIREMENTS FOR ELIGIBLE UNITS*  
 23          *OF LOCAL GOVERNMENT.*—In developing the  
 24          strategy under subparagraph (A), an eligible  
 25          unit of local government shall—

1           (i) take into account any plans for the  
 2           use of funds by adjacent eligible units of  
 3           local governments that receive grants under  
 4           the program; and

5           (ii) coordinate and share information  
 6           with the State in which the eligible unit of  
 7           local government is located regarding ac-  
 8           tivities carried out using the grant to maxi-  
 9           mize the energy efficiency and conservation  
 10          benefits under this subtitle.

11          (2) *APPROVAL BY SECRETARY.*—

12           (A) *IN GENERAL.*—The Secretary shall ap-  
 13           prove or disapprove a proposed strategy under  
 14           paragraph (1) by not later than 120 days after  
 15           the date of submission of the proposed strategy.

16           (B) *DISAPPROVAL.*—If the Secretary dis-  
 17           approves a proposed strategy under subpara-  
 18           graph (A)—

19           (i) the Secretary shall provide to the  
 20           eligible unit of local government or Indian  
 21           tribe the reasons for the disapproval; and

22           (ii) the eligible unit of local govern-  
 23           ment or Indian tribe may revise and resub-  
 24           mit the proposed strategy as many times as

1           *necessary until the Secretary approves a*  
 2           *proposed strategy.*

3           (C) *REQUIREMENT.*—*The Secretary shall*  
 4           *not provide to an eligible unit of local govern-*  
 5           *ment or Indian tribe any grant under the pro-*  
 6           *gram until a proposed strategy of the eligible*  
 7           *unit of local government or Indian tribe is ap-*  
 8           *proved by the Secretary under this paragraph.*

9           (3) *LIMITATIONS ON USE OF FUNDS.*—*Of*  
 10          *amounts provided to an eligible unit of local govern-*  
 11          *ment or Indian tribe under the program, an eligible*  
 12          *unit of local government or Indian tribe may use—*

13               (A) *for administrative expenses, excluding*  
 14               *the cost of meeting the reporting requirements of*  
 15               *this subtitle, an amount equal to the greater of—*

16                       (i) *10 percent; and*

17                       (ii) *\$75,000;*

18               (B) *for the establishment of revolving loan*  
 19               *funds, an amount equal to the greater of—*

20                       (i) *20 percent; and*

21                       (ii) *\$250,000; and*

22               (C) *for the provision of subgrants to non-*  
 23               *governmental organizations for the purpose of*  
 24               *assisting in the implementation of the energy ef-*  
 25               *iciency and conservation strategy of the eligible*

1           *unit of local government or Indian tribe, an*  
 2           *amount equal to the greater of—*

3                     *(i) 20 percent; and*

4                     *(ii) \$250,000.*

5           (4) *ANNUAL REPORT.*—*Not later than 2 years*  
 6           *after the date on which funds are initially provided*  
 7           *to an eligible unit of local government or Indian tribe*  
 8           *under the program, and annually thereafter, the eligi-*  
 9           *ble unit of local government or Indian tribe shall sub-*  
 10          *mit to the Secretary a report describing—*

11                    *(A) the status of development and imple-*  
 12                    *mentation of the energy efficiency and conserva-*  
 13                    *tion strategy of the eligible unit of local govern-*  
 14                    *ment or Indian tribe; and*

15                    *(B) as practicable, an assessment of energy*  
 16                    *efficiency gains within the jurisdiction of the eli-*  
 17                    *gible unit of local government or Indian tribe.*

18          (c) *STATES.*—

19           (1) *DISTRIBUTION OF FUNDS.*—

20                    *(A) IN GENERAL.*—*A State that receives a*  
 21                    *grant under the program shall use not less than*  
 22                    *60 percent of the amount received to provide sub-*  
 23                    *grants to units of local government in the State*  
 24                    *that are not eligible units of local government.*

1           (B) *DEADLINE.*—*The State shall provide*  
 2           *the subgrants required under subparagraph (A)*  
 3           *by not later than 180 days after the date on*  
 4           *which the Secretary approves a proposed energy*  
 5           *efficiency and conservation strategy of the State*  
 6           *under paragraph (3).*

7           (2) *REVISION OF CONSERVATION PLAN; PRO-*  
 8           *POSED STRATEGY.*—*Not later than 120 days after the*  
 9           *date of enactment of this Act, each State shall—*

10           (A) *modify the State energy conservation*  
 11           *plan of the State under section 362 of the En-*  
 12           *ergy Policy and Conservation Act (42 U.S.C.*  
 13           *6322) to establish additional goals for increased*  
 14           *energy efficiency and conservation in the State;*  
 15           *and*

16           (B) *submit to the Secretary a proposed en-*  
 17           *ergy efficiency and conservation strategy that—*

18           (i) *establishes a process for providing*  
 19           *subgrants as required under paragraph (1);*  
 20           *and*

21           (ii) *includes a plan of the State for the*  
 22           *use of funds received under a the program*  
 23           *to assist the State in achieving the goals es-*  
 24           *tablished under subparagraph (A), in ac-*  
 25           *cordance with sections 542(b) and 544.*

1           (3) *APPROVAL BY SECRETARY.*—

2                 (A) *IN GENERAL.*—*The Secretary shall ap-*  
3                 *prove or disapprove a proposed strategy under*  
4                 *paragraph (2)(B) by not later than 120 days*  
5                 *after the date of submission of the proposed strat-*  
6                 *egy.*

7                 (B) *DISAPPROVAL.*—*If the Secretary dis-*  
8                 *approves a proposed strategy under subpara-*  
9                 *graph (A)—*

10                         (i) *the Secretary shall provide to the*  
11                         *State the reasons for the disapproval; and*

12                         (ii) *the State may revise and resubmit*  
13                         *the proposed strategy as many times as nec-*  
14                         *essary until the Secretary approves a pro-*  
15                         *posed strategy.*

16                 (C) *REQUIREMENT.*—*The Secretary shall*  
17                 *not provide to a State any grant under the pro-*  
18                 *gram until a proposed strategy of the State is*  
19                 *approved the Secretary under this paragraph.*

20                 (4) *LIMITATIONS ON USE OF FUNDS.*—*A State*  
21                 *may use not more than 10 percent of amounts pro-*  
22                 *vided under the program for administrative expenses.*

23                 (5) *ANNUAL REPORTS.*—*Each State that receives*  
24                 *a grant under the program shall submit to the Sec-*  
25                 *retary an annual report that describes—*

1           (A) *the status of development and imple-*  
 2           *mentation of the energy efficiency and conserva-*  
 3           *tion strategy of the State during the preceding*  
 4           *calendar year;*

5           (B) *the status of the subgrant program of*  
 6           *the State under paragraph (1);*

7           (C) *the energy efficiency gains achieved*  
 8           *through the energy efficiency and conservation*  
 9           *strategy of the State during the preceding cal-*  
 10          *endar year; and*

11          (D) *specific energy efficiency and conserva-*  
 12          *tion goals of the State for subsequent calendar*  
 13          *years.*

14   **SEC. 546. COMPETITIVE GRANTS.**

15          (a) *IN GENERAL.*—*Of the total amount made available*  
 16          *for each fiscal year to carry out this subtitle, the Secretary*  
 17          *shall use not less than 2 percent to provide grants under*  
 18          *this section, on a competitive basis, to—*

19               (1) *units of local government (including Indian*  
 20               *tribes) that are not eligible entities; and*

21               (2) *consortia of units of local government de-*  
 22               *scribed in paragraph (1).*

23          (b) *APPLICATIONS.*—*To be eligible to receive a grant*  
 24          *under this section, a unit of local government or consortia*  
 25          *shall submit to the Secretary an application at such time,*



1 *in such manner, and containing such information as the*  
 2 *Secretary may require, including a plan of the unit of local*  
 3 *government to carry out an activity described in section*  
 4 *544.*

5 *(c) PRIORITY.—In providing grants under this section,*  
 6 *the Secretary shall give priority to units of local*  
 7 *government—*

8 *(1) located in States with populations of less*  
 9 *than 2,000,000; or*

10 *(2) that plan to carry out projects that would re-*  
 11 *sult in significant energy efficiency improvements or*  
 12 *reductions in fossil fuel use.*

13 **SEC. 547. REVIEW AND EVALUATION.**

14 *(a) IN GENERAL.—The Secretary may review and*  
 15 *evaluate the performance of any eligible entity that receives*  
 16 *a grant under the program, including by conducting an*  
 17 *audit, as the Secretary determines to be appropriate.*

18 *(b) WITHHOLDING OF FUNDS.—The Secretary may*  
 19 *withhold from an eligible entity any portion of a grant to*  
 20 *be provided to the eligible entity under the program if the*  
 21 *Secretary determines that the eligible entity has failed to*  
 22 *achieve compliance with—*

23 *(1) any applicable guideline or regulation of the*  
 24 *Secretary relating to the program, including the mis-*

1        *use or misappropriation of funds provided under the*  
 2        *program; or*

3                *(2) the energy efficiency and conservation strat-*  
 4        *egy of the eligible entity.*

5    **SEC. 548. FUNDING.**

6        *(a) AUTHORIZATION OF APPROPRIATIONS.—*

7                *(1) GRANTS.—There is authorized to be appro-*  
 8        *priated to the Secretary for the provision of grants*  
 9        *under the program \$2,000,000,000 for each of fiscal*  
 10       *years 2008 through 2012; provided that 49 percent of*  
 11       *the appropriated funds shall be distributed using the*  
 12       *definition of eligible unit of local government-alter-*  
 13       *native 1 in section 541(3)(A) and 49 percent of the*  
 14       *appropriated funds shall be distributed using the defi-*  
 15       *inition of eligible unit of local government-alternative*  
 16       *2 in section 541(3)(B).*

17               *(2) ADMINISTRATIVE COSTS.—There are author-*  
 18       *ized to be appropriated to the Secretary for adminis-*  
 19       *trative expenses of the program—*

20                *(A) \$20,000,000 for each of fiscal years*  
 21        *2008 and 2009;*

22                *(B) \$25,000,000 for each of fiscal years*  
 23        *2010 and 2011; and*

24                *(C) \$30,000,000 for fiscal year 2012.*

1       (b) *MAINTENANCE OF FUNDING.*—*The funding pro-*  
 2 *vided under this section shall supplement (and not sup-*  
 3 *plant) other Federal funding provided under—*

4           (1) *a State energy conservation plan established*  
 5 *under part D of title III of the Energy Policy and*  
 6 *Conservation Act (42 U.S.C. 6321 et seq.); or*

7           (2) *the Weatherization Assistance Program for*  
 8 *Low-Income Persons established under part A of title*  
 9 *IV of the Energy Conservation and Production Act*  
 10 *(42 U.S.C. 6861 et seq.).*

11           ***TITLE VI—ACCELERATED***  
 12 ***RESEARCH AND DEVELOPMENT***  
 13 ***Subtitle A—Solar Energy***

14 ***SEC. 601. SHORT TITLE.***

15       *This subtitle may be cited as the “Solar Energy Re-*  
 16 *search and Advancement Act of 2007”.*

17 ***SEC. 602. THERMAL ENERGY STORAGE RESEARCH AND DE-***  
 18 ***VELOPMENT PROGRAM.***

19       (a) *ESTABLISHMENT.*—*The Secretary shall establish a*  
 20 *program of research and development to provide lower cost*  
 21 *and more viable thermal energy storage technologies to en-*  
 22 *able the shifting of electric power loads on demand and ex-*  
 23 *tend the operating time of concentrating solar power electric*  
 24 *generating plants.*

1       (b) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 2 *authorized to be appropriated to the Secretary for carrying*  
 3 *out this section \$5,000,000 for fiscal year 2008, \$7,000,000*  
 4 *for fiscal year 2009, \$9,000,000 for fiscal year 2010,*  
 5 *\$10,000,000 for fiscal year 2011, and \$12,000,000 for fiscal*  
 6 *year 2012.*

7       **SEC. 603. CONCENTRATING SOLAR POWER COMMERCIAL**  
 8                               **APPLICATION STUDIES.**

9       (a) *INTEGRATION.*—*The Secretary shall conduct a*  
 10 *study on methods to integrate concentrating solar power*  
 11 *and utility-scale photovoltaic systems into regional elec-*  
 12 *tricity transmission systems, and to identify new trans-*  
 13 *mission or transmission upgrades needed to bring elec-*  
 14 *tricity from high concentrating solar power resource areas*  
 15 *to growing electric power load centers throughout the*  
 16 *United States. The study shall analyze and assess cost-effec-*  
 17 *tive approaches for management and large-scale integration*  
 18 *of concentrating solar power and utility-scale photovoltaic*  
 19 *systems into regional electric transmission grids to improve*  
 20 *electric reliability, to efficiently manage load, and to reduce*  
 21 *demand on the natural gas transmission system for electric*  
 22 *power. The Secretary shall submit a report to Congress on*  
 23 *the results of this study not later than 12 months after the*  
 24 *date of enactment of this Act.*

1       (b) *WATER CONSUMPTION.*—Not later than 6 months  
2 after the date of the enactment of this Act, the Secretary  
3 of Energy shall transmit to Congress a report on the results  
4 of a study on methods to reduce the amount of water con-  
5 sumed by concentrating solar power systems.

6   **SEC. 604. SOLAR ENERGY CURRICULUM DEVELOPMENT AND**  
7                           **CERTIFICATION GRANTS.**

8       (a) *ESTABLISHMENT.*—The Secretary shall establish  
9 in the Office of Solar Energy Technologies a competitive  
10 grant program to create and strengthen solar industry  
11 workforce training and internship programs in installa-  
12 tion, operation, and maintenance of solar energy products.  
13 The goal of this program is to ensure a supply of well-  
14 trained individuals to support the expansion of the solar  
15 energy industry.

16       (b) *AUTHORIZED ACTIVITIES.*—Grant funds may be  
17 used to support the following activities:

18               (1) *Creation and development of a solar energy*  
19 *curriculum appropriate for the local educational, en-*  
20 *trepreneurial, and environmental conditions, includ-*  
21 *ing curriculum for community colleges.*

22               (2) *Support of certification programs for indi-*  
23 *vidual solar energy system installers, instructors, and*  
24 *training programs.*

1           (3) *Internship programs that provide hands-on*  
 2           *participation by students in commercial applications.*

3           (4) *Activities required to obtain certification of*  
 4           *training programs and facilities by an industry-ac-*  
 5           *cepted quality-control certification program.*

6           (5) *Incorporation of solar-specific learning mod-*  
 7           *ules into traditional occupational training and in-*  
 8           *ternship programs for construction-related trades.*

9           (6) *The purchase of equipment necessary to*  
 10          *carry out activities under this section.*

11          (7) *Support of programs that provide guidance*  
 12          *and updates to solar energy curriculum instructors.*

13          (c) *ADMINISTRATION OF GRANTS.—Grants may be*  
 14          *awarded under this section for up to 3 years. The Secretary*  
 15          *shall award grants to ensure sufficient geographic distribu-*  
 16          *tion of training programs nationally. Grants shall only be*  
 17          *awarded for programs certified by an industry-accepted*  
 18          *quality-control certification institution, or for new and*  
 19          *growing programs with a credible path to certification. Due*  
 20          *consideration shall be given to women, underrepresented*  
 21          *minorities, and persons with disabilities.*

22          (d) *REPORT.—The Secretary shall make public, on the*  
 23          *website of the Department or upon request, information on*  
 24          *the name and institution for all grants awarded under this*

1 *section, including a brief description of the project as well*  
 2 *as the grant award amount.*

3 *(e) AUTHORIZATION OF APPROPRIATIONS.—There are*  
 4 *authorized to be appropriated to the Secretary for carrying*  
 5 *out this section \$10,000,000 for each of the fiscal years 2008*  
 6 *through 2012.*

7 **SEC. 605. DAYLIGHTING SYSTEMS AND DIRECT SOLAR**  
 8 **LIGHT PIPE TECHNOLOGY.**

9 *(a) ESTABLISHMENT.—The Secretary shall establish a*  
 10 *program of research and development to provide assistance*  
 11 *in the demonstration and commercial application of direct*  
 12 *solar renewable energy sources to provide alternatives to*  
 13 *traditional power generation for lighting and illumination,*  
 14 *including light pipe technology, and to promote greater en-*  
 15 *ergy conservation and improved efficiency. All direct solar*  
 16 *renewable energy devices supported under this program*  
 17 *shall have the capability to provide measurable data on the*  
 18 *amount of kilowatt-hours saved over the traditionally pow-*  
 19 *ered light sources they have replaced.*

20 *(b) REPORTING.—The Secretary shall transmit to Con-*  
 21 *gress an annual report assessing the measurable data de-*  
 22 *rived from each project in the direct solar renewable energy*  
 23 *sources program and the energy savings resulting from its*  
 24 *use.*

25 *(c) DEFINITIONS.—For purposes of this section—*

(1) the term “direct solar renewable energy” means energy from a device that converts sunlight into useable light within a building, tunnel, or other enclosed structure, replacing artificial light generated by a light fixture and doing so without the conversion of the sunlight into another form of energy; and

(2) the term “light pipe” means a device designed to transport visible solar radiation from its collection point to the interior of a building while excluding interior heat gain in the nonheating season.

11 (d) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
12 *authorized to be appropriated to the Secretary for carrying*  
13 *out this section \$3,500,000 for each of the fiscal years 2008*  
14 *through 2012.*

15 *SEC. 606. SOLAR AIR CONDITIONING RESEARCH AND DE-*  
16 *VELOPMENT PROGRAM.*

(a) *ESTABLISHMENT.*—The Secretary shall establish a research, development, and demonstration program to promote less costly and more reliable decentralized distributed solar-powered air conditioning for individuals and businesses.

(b) *AUTHORIZED ACTIVITIES.*—Grants made available under this section may be used to support the following activities:



1           (1) *Advancing solar thermal collectors, including*  
 2           *concentrating solar thermal and electric systems, flat*  
 3           *plate and evacuated tube collector performance.*

4           (2) *Achieving technical and economic integration*  
 5           *of solar-powered distributed air-conditioning systems*  
 6           *with existing hot water and storage systems for resi-*  
 7           *dential applications.*

8           (3) *Designing and demonstrating mass manufac-*  
 9           *turing capability to reduce costs of modular standard-*  
 10          *ized solar-powered distributed air conditioning sys-*  
 11          *tems and components.*

12          (4) *Improving the efficiency of solar-powered dis-*  
 13          *tributed air-conditioning to increase the effectiveness*  
 14          *of solar-powered absorption chillers, solar-driven com-*  
 15          *pressors and condensers, and cost-effective precooling*  
 16          *approaches.*

17          (5) *Researching and comparing performance of*  
 18          *solar-powered distributed air conditioning systems in*  
 19          *different regions of the country, including potential*  
 20          *integration with other onsite systems, such as solar,*  
 21          *biogas, geothermal heat pumps, and propane assist or*  
 22          *combined propane fuel cells, with a goal to develop*  
 23          *site-specific energy production and management sys-*  
 24          *tems that ease fuel and peak utility loading.*

1       (c) *COST SHARING*.—Section 988 of the *Energy Policy*  
 2   *Act of 2005* (42 U.S.C. 16352) shall apply to a project car-  
 3   ried out under this section.

4       (d) *AUTHORIZATION OF APPROPRIATIONS*.—There are  
 5   authorized to be appropriated to the Secretary for carrying  
 6   out this section \$2,500,000 for each of the fiscal years 2008  
 7   through 2012.

8   **SEC. 607. PHOTOVOLTAIC DEMONSTRATION PROGRAM.**

9       (a) *IN GENERAL*.—The Secretary shall establish a pro-  
 10   gram of grants to States to demonstrate advanced photo-  
 11   voltaic technology.

12      (b) *REQUIREMENTS*.—

13           (1) *ABILITY TO MEET REQUIREMENTS*.—To re-  
 14   ceive funding under the program under this section,  
 15   a State must submit a proposal that demonstrates, to  
 16   the satisfaction of the Secretary, that the State will  
 17   meet the requirements of subsection (f).

18           (2) *COMPLIANCE WITH REQUIREMENTS*.—If a  
 19   State has received funding under this section for the  
 20   preceding year, the State must demonstrate, to the  
 21   satisfaction of the Secretary, that it complied with the  
 22   requirements of subsection (f) in carrying out the pro-  
 23   gram during that preceding year, and that it will do  
 24   so in the future, before it can receive further funding  
 25   under this section.

1       (c) *COMPETITION.*—*The Secretary shall award grants*  
 2 *on a competitive basis to the States with the proposals the*  
 3 *Secretary considers most likely to encourage the widespread*  
 4 *adoption of photovoltaic technologies. The Secretary shall*  
 5 *take into consideration the geographic distribution of*  
 6 *awards.*

7       (d) *PROPOSALS.*—*Not later than 6 months after the*  
 8 *date of enactment of this Act, and in each subsequent fiscal*  
 9 *year for the life of the program, the Secretary shall solicit*  
 10 *proposals from the States to participate in the program*  
 11 *under this section.*

12       (e) *COMPETITIVE CRITERIA.*—*In awarding funds in a*  
 13 *competitive allocation under subsection (c), the Secretary*  
 14 *shall consider—*

15               (1) *the likelihood of a proposal to encourage the*  
 16 *demonstration of, or lower the costs of, advanced pho-*  
 17 *tovoltaic technologies; and*

18               (2) *the extent to which a proposal is likely to—*

19                       (A) *maximize the amount of photovoltaics*  
 20 *demonstrated;*

21                       (B) *maximize the proportion of non-Federal*  
 22 *cost share; and*

23                       (C) *limit State administrative costs.*

24       (f) *STATE PROGRAM.*—*A program operated by a State*  
 25 *with funding under this section shall provide competitive*

1 *awards for the demonstration of advanced photo-voltaic*  
2 *technologies. Each State program shall—*

3 *(1) require a contribution of at least 60 percent*  
4 *per award from non-Federal sources, which may in-*  
5 *clude any combination of State, local, and private*  
6 *funds, except that at least 10 percent of the funding*  
7 *must be supplied by the State;*

8 *(2) endeavor to fund recipients in the commer-*  
9 *cial, industrial, institutional, governmental, and resi-*  
10 *dential sectors;*

11 *(3) limit State administrative costs to no more*  
12 *than 10 percent of the grant;*

13 *(4) report annually to the Secretary on—*

14 *(A) the amount of funds disbursed;*

15 *(B) the amount of photovoltaics purchased;*

16 *and*

17 *(C) the results of the monitoring under*  
18 *paragraph (5);*

19 *(5) provide for measurement and verification of*  
20 *the output of a representative sample of the*  
21 *photovoltaics systems demonstrated throughout the av-*  
22 *erage working life of the systems, or at least 20 years;*  
23 *and*

24 *(6) require that applicant buildings must have*  
25 *received an independent energy efficiency audit dur-*

1        *ing the 6-month period preceding the filing of the ap-*  
 2        *plication.*

3        *(g) UNEXPENDED FUNDS.—If a State fails to expend*  
 4        *any funds received under this section within 3 years of re-*  
 5        *ceipt, such remaining funds shall be returned to the Treas-*  
 6        *ury.*

7        *(h) REPORTS.—The Secretary shall report to Congress*  
 8        *5 years after funds are first distributed to the States under*  
 9        *this section—*

- 10            *(1) the amount of photovoltaics demonstrated;*
- 11            *(2) the number of projects undertaken;*
- 12            *(3) the administrative costs of the program;*
- 13            *(4) the results of the monitoring under subsection*  
 14        *(f)(5); and*
- 15            *(5) the total amount of funds distributed, includ-*  
 16        *ing a breakdown by State.*

17        *(i) AUTHORIZATION OF APPROPRIATIONS.—There are*  
 18        *authorized to be appropriated to the Secretary for the pur-*  
 19        *poses of carrying out this section—*

- 20            *(1) \$15,000,000 for fiscal year 2008;*
- 21            *(2) \$30,000,000 for fiscal year 2009;*
- 22            *(3) \$45,000,000 for fiscal year 2010;*
- 23            *(4) \$60,000,000 for fiscal year 2011; and*
- 24            *(5) \$70,000,000 for fiscal year 2012.*

## 1       ***Subtitle B—Geothermal Energy***

### 2       ***SEC. 611. SHORT TITLE.***

3           *This subtitle may be cited as the “Advanced Geo-*  
 4 *thermal Energy Research and Development Act of 2007”.*

### 5       ***SEC. 612. DEFINITIONS.***

6           *For purposes of this subtitle:*

7                   (1) *ENGINEERED.*—*When referring to enhanced*  
 8 *geothermal systems, the term “engineered” means sub-*  
 9 *jected to intervention, including intervention to ad-*  
 10 *dress one or more of the following issues:*

11                           (A) *Lack of effective permeability or poros-*  
 12 *ity or open fracture connectivity within the res-*  
 13 *ervoir.*

14                           (B) *Insufficient contained geofluid in the*  
 15 *reservoir.*

16                           (C) *A low average geothermal gradient,*  
 17 *which necessitates deeper drilling.*

18                   (2) *ENHANCED GEOTHERMAL SYSTEMS.*—*The*  
 19 *term “enhanced geothermal systems” means geo-*  
 20 *thermal reservoir systems that are engineered, as op-*  
 21 *posed to occurring naturally.*

22                   (3) *GEOFLUID.*—*The term “geofluid” means any*  
 23 *fluid used to extract thermal energy from the Earth*  
 24 *which is transported to the surface for direct use or*

1       *electric power generation, except that such term shall*  
 2       *not include oil or natural gas.*

3               (4) *GEOPRESSURED RESOURCES.*—*The term*  
 4       *“geopressured resources” mean geothermal deposits*  
 5       *found in sedimentary rocks under higher than normal*  
 6       *pressure and saturated with gas or methane.*

7               (5) *GEOHERMAL.*—*The term “geothermal” re-*  
 8       *fers to heat energy stored in the Earth’s crust that*  
 9       *can be accessed for direct use or electric power genera-*  
 10       *tion.*

11              (6) *HYDROTHERMAL.*—*The term “hydrothermal”*  
 12       *refers to naturally occurring subsurface reservoirs of*  
 13       *hot water or steam.*

14              (7) *SYSTEMS APPROACH.*—*The term “systems*  
 15       *approach” means an approach to solving problems or*  
 16       *designing systems that attempts to optimize the per-*  
 17       *formance of the overall system, rather than a par-*  
 18       *ticular component of the system.*

19   **SEC. 613. HYDROTHERMAL RESEARCH AND DEVELOPMENT.**

20              (a) *IN GENERAL.*—*The Secretary shall support pro-*  
 21       *grams of research, development, demonstration, and com-*  
 22       *mercial application to expand the use of geothermal energy*  
 23       *production from hydrothermal systems, including the pro-*  
 24       *grams described in subsection (b).*

25              (b) *PROGRAMS.*—

1           (1) *ADVANCED HYDROTHERMAL RESOURCE*  
 2           *TOOLS.—The Secretary, in consultation with other*  
 3           *appropriate agencies, shall support a program to de-*  
 4           *velop advanced geophysical, geochemical, and geologic*  
 5           *tools to assist in locating hidden hydrothermal re-*  
 6           *sources, and to increase the reliability of site charac-*  
 7           *terization before, during, and after initial drilling.*  
 8           *The program shall develop new prospecting techniques*  
 9           *to assist in prioritization of targets for characteriza-*  
 10          *tion. The program shall include a field component.*

11          (2) *INDUSTRY COUPLED EXPLORATORY DRILL-*  
 12          *ING.—The Secretary shall support a program of cost-*  
 13          *shared field demonstration programs, to be pursued,*  
 14          *simultaneously and independently, in collaboration*  
 15          *with industry partners, for the demonstration of ad-*  
 16          *vanced technologies and techniques of siting and ex-*  
 17          *ploratory drilling for undiscovered resources in a va-*  
 18          *riety of geologic settings. The program shall include*  
 19          *incentives to encourage the use of advanced tech-*  
 20          *nologies and techniques.*

21 **SEC. 614. GENERAL GEOTHERMAL SYSTEMS RESEARCH AND**  
 22 **DEVELOPMENT.**

23          (a) *SUBSURFACE COMPONENTS AND SYSTEMS.—The*  
 24          *Secretary shall support a program of research, development,*  
 25          *demonstration, and commercial application of components*



1 *and systems capable of withstanding extreme geothermal*  
 2 *environments and necessary to cost-effectively develop,*  
 3 *produce, and monitor geothermal reservoirs and produce*  
 4 *geothermal energy. These components and systems shall in-*  
 5 *clude advanced casing systems (expandable tubular casing,*  
 6 *low-clearance casing designs, and others), high-temperature*  
 7 *cements, high-temperature submersible pumps, and high-*  
 8 *temperature packers, as well as technologies for under-ream-*  
 9 *ing, multilateral completions, high-temperature and high-*  
 10 *pressure logging, logging while drilling, deep fracture stim-*  
 11 *ulation, and reservoir system diagnostics.*

12       (b) *RESERVOIR PERFORMANCE MODELING.—The Sec-*  
 13 *retary shall support a program of research, development,*  
 14 *demonstration, and commercial application of models of*  
 15 *geothermal reservoir performance, with an emphasis on ac-*  
 16 *curately modeling performance over time. Models shall be*  
 17 *developed to assist both in the development of geothermal*  
 18 *reservoirs and to more accurately account for stress-related*  
 19 *effects in stimulated hydrothermal and enhanced geothermal*  
 20 *systems production environments.*

21       (c) *ENVIRONMENTAL IMPACTS.—The Secretary shall—*  
 22               (1) *support a program of research, development,*  
 23               *demonstration, and commercial application of tech-*  
 24               *nologies and practices designed to mitigate or pre-*  
 25               *clude potential adverse environmental impacts of geo-*

1        *thermal energy development, production or use, and*  
 2        *seek to ensure that geothermal energy development is*  
 3        *consistent with the highest practicable standards of*  
 4        *environmental stewardship;*

5            *(2) in conjunction with the Assistant Adminis-*  
 6        *trator for Research and Development at the Environ-*  
 7        *mental Protection Agency, support a research pro-*  
 8        *gram to identify potential environmental impacts of*  
 9        *geothermal energy development, production, and use,*  
 10       *and ensure that the program described in paragraph*  
 11       *(1) addresses such impacts, including effects on*  
 12       *groundwater and local hydrology; and*

13           *(3) support a program of research to compare*  
 14        *the potential environmental impacts identified as*  
 15        *part of the development, production, and use of geo-*  
 16        *thermal energy with the potential emission reductions*  
 17        *of greenhouse gases gained by geothermal energy de-*  
 18        *velopment, production, and use.*

19    **SEC. 615. ENHANCED GEOTHERMAL SYSTEMS RESEARCH**  
 20                                    **AND DEVELOPMENT.**

21        *(a) IN GENERAL.—The Secretary shall support a pro-*  
 22        *gram of research, development, demonstration, and commer-*  
 23        *cial application for enhanced geothermal systems, including*  
 24        *the programs described in subsection (b).*

25        *(b) PROGRAMS.—*

1           (1) *ENHANCED GEOTHERMAL SYSTEMS TECH-*  
 2           *NOLOGIES.*—*The Secretary shall support a program*  
 3           *of research, development, demonstration, and commer-*  
 4           *cial application of the technologies and knowledge*  
 5           *necessary for enhanced geothermal systems to advance*  
 6           *to a state of commercial readiness, including advances*  
 7           *in—*

8                     (A) *reservoir stimulation;*

9                     (B) *reservoir characterization, monitoring,*  
 10           *and modeling;*

11                    (C) *stress mapping;*

12                    (D) *tracer development;*

13                    (E) *three-dimensional tomography; and*

14                    (F) *understanding seismic effects of res-*  
 15           *ervoir engineering and stimulation.*

16           (2) *ENHANCED GEOTHERMAL SYSTEMS RES-*  
 17           *ERVOIR STIMULATION.*—

18                    (A) *PROGRAM.*—*In collaboration with in-*  
 19           *dustry partners, the Secretary shall support a*  
 20           *program of research, development, and dem-*  
 21           *onstration of enhanced geothermal systems res-*  
 22           *ervoir stimulation technologies and techniques. A*  
 23           *minimum of 4 sites shall be selected in locations*  
 24           *that show particular promise for enhanced geo-*  
 25           *thermal systems development. Each site shall—*

1                   (i) represent a different class of sub-  
2                   surface geologic environments; and

3                   (ii) take advantage of an existing site  
4                   where subsurface characterization has been  
5                   conducted or existing drill holes can be uti-  
6                   lized, if possible.

7                   (B) *CONSIDERATION OF EXISTING SITE.*—  
8                   *The Desert Peak, Nevada, site, where a Depart-*  
9                   *ment of Energy and industry cooperative en-*  
10                  *hanced geothermal systems project is already un-*  
11                  *derway, may be considered for inclusion among*  
12                  *the sites selected under subparagraph (A).*

13 **SEC. 616. GEOTHERMAL ENERGY PRODUCTION FROM OIL**  
14 **AND GAS FIELDS AND RECOVERY AND PRO-**  
15 **DUCTION OF GEOPRESSURED GAS RE-**  
16 **SOURCES.**

17           (a) *IN GENERAL.*—*The Secretary shall establish a pro-*  
18 *gram of research, development, demonstration, and commer-*  
19 *cial application to support development of geothermal en-*  
20 *ergy production from oil and gas fields and production and*  
21 *recovery of energy, including electricity, from geopressured*  
22 *resources. In addition, the Secretary shall conduct such sup-*  
23 *porting activities including research, resource characteriza-*  
24 *tion, and technology development as necessary.*

1       (b) *GEOHERMAL ENERGY PRODUCTION FROM OIL*  
 2 *AND GAS FIELDS.*—*The Secretary shall implement a grant*  
 3 *program in support of geothermal energy production from*  
 4 *oil and gas fields. The program shall include grants for a*  
 5 *total of not less than three demonstration projects of the*  
 6 *use of geothermal techniques such as advanced organic*  
 7 *rankine cycle systems at marginal, unproductive, and pro-*  
 8 *ductive oil and gas wells. The Secretary shall, to the extent*  
 9 *practicable and in the public interest, make awards that—*

10           (1) *include not less than five oil or gas well sites*  
 11       *per project award;*

12           (2) *use a range of oil or gas well hot water*  
 13       *source temperatures from 150 degrees Fahrenheit to*  
 14       *300 degrees Fahrenheit;*

15           (3) *cover a range of sizes up to one megawatt;*

16           (4) *are located at a range of sites;*

17           (5) *can be replicated at a wide range of sites;*

18           (6) *facilitate identification of optimum tech-*  
 19       *niques among competing alternatives;*

20           (7) *include business commercialization plans*  
 21       *that have the potential for production of equipment at*  
 22       *high volumes and operation and support at a large*  
 23       *number of sites; and*

1           (8) *satisfy other criteria that the Secretary deter-*  
2           *mines are necessary to carry out the program and*  
3           *collect necessary data and information.*

4   *The Secretary shall give preference to assessments that ad-*  
5   *dress multiple elements contained in paragraphs (1)*  
6   *through (8).*

7           (c) *GRANT AWARDS.—Each grant award for dem-*  
8           *onstration of geothermal technology such as advanced or-*  
9           *ganic rankine cycle systems at oil and gas wells made by*  
10          *the Secretary under subsection (b) shall include—*

11           (1) *necessary and appropriate site engineering*  
12          *study;*

13           (2) *detailed economic assessment of site specific*  
14          *conditions;*

15           (3) *appropriate feasibility studies to determine*  
16          *whether the demonstration can be replicated;*

17           (4) *design or adaptation of existing technology*  
18          *for site specific circumstances or conditions;*

19           (5) *installation of equipment, service, and sup-*  
20          *port;*

21           (6) *operation for a minimum of one year and*  
22          *monitoring for the duration of the demonstration; and*

23           (7) *validation of technical and economic assump-*  
24          *tions and documentation of lessons learned.*

1       (d) *GEOPRESSURED GAS RESOURCE RECOVERY AND*  
 2 *PRODUCTION.*—(1) *The Secretary shall implement a pro-*  
 3 *gram to support the research, development, demonstration,*  
 4 *and commercial application of cost-effective techniques to*  
 5 *produce energy from geopressured resources.*

6       (2) *The Secretary shall solicit preliminary engineering*  
 7 *designs for geopressured resources production and recovery*  
 8 *facilities.*

9       (3) *Based upon a review of the preliminary designs,*  
 10 *the Secretary shall award grants, which may be cost-shared,*  
 11 *to support the detailed development and completion of engi-*  
 12 *neering, architectural and technical plans needed to support*  
 13 *construction of new designs.*

14       (4) *Based upon a review of the final design plans*  
 15 *above, the Secretary shall award cost-shared development*  
 16 *and construction grants for demonstration geopressured*  
 17 *production facilities that show potential for economic recov-*  
 18 *ery of the heat, kinetic energy and gas resources from*  
 19 *geopressured resources.*

20       (e) *COMPETITIVE GRANT SELECTION.*—*Not less than*  
 21 *90 days after the date of the enactment of this Act, the Sec-*  
 22 *retary shall conduct a national solicitation for applications*  
 23 *for grants under the programs outlined in subsections (b)*  
 24 *and (d). Grant recipients shall be selected on a competitive*  
 25 *basis based on criteria in the respective subsection.*

1       (f) *WELL DRILLING.*—No funds may be used under  
2   this section for the purpose of drilling new wells.

3   **SEC. 617. COST SHARING AND PROPOSAL EVALUATION.**

4       (a) *FEDERAL SHARE.*—The Federal share of costs of  
5   projects funded under this subtitle shall be in accordance  
6   with section 988 of the Energy Policy Act of 2005.

7       (b) *ORGANIZATION AND ADMINISTRATION OF PRO-*  
8   *GRAMS.*—Programs under this subtitle shall incorporate the  
9   following elements:

10           (1) *The Secretary shall coordinate with, and*  
11       *where appropriate may provide funds in furtherance*  
12       *of the purposes of this subtitle to, other Department*  
13       *of Energy research and development programs focused*  
14       *on drilling, subsurface characterization, and other re-*  
15       *lated technologies.*

16           (2) *In evaluating proposals, the Secretary shall*  
17       *give priority to proposals that demonstrate clear evi-*  
18       *dence of employing a systems approach.*

19           (3) *The Secretary shall coordinate and consult*  
20       *with the appropriate Federal land management agen-*  
21       *cies in selecting proposals for funding under this sub-*  
22       *title.*

23           (4) *Nothing in this subtitle shall be construed to*  
24       *alter or affect any law relating to the management or*  
25       *protection of Federal lands.*



1 **SEC. 618. CENTER FOR GEOTHERMAL TECHNOLOGY TRANS-**  
2 **FER.**

3 (a) *IN GENERAL.*—The Secretary shall award to an  
4 institution of higher education (or consortium thereof) a  
5 grant to establish a Center for Geothermal Technology  
6 Transfer (referred to in this section as the “Center”).

7 (b) *DUTIES.*—The Center shall—

8 (1) *serve as an information clearinghouse for the*  
9 *geothermal industry by collecting and disseminating*  
10 *information on best practices in all areas relating to*  
11 *developing and utilizing geothermal resources;*

12 (2) *make data collected by the Center available*  
13 *to the public; and*

14 (3) *seek opportunities to coordinate efforts and*  
15 *share information with domestic and international*  
16 *partners engaged in research and development of geo-*  
17 *thermal systems and related technology.*

18 (c) *SELECTION CRITERIA.*—In awarding the grant  
19 under subsection (a) the Secretary shall select an institution  
20 of higher education (or consortium thereof) best suited to  
21 provide national leadership on geothermal related issues  
22 and perform the duties enumerated under subsection (b).

23 (d) *DURATION OF GRANT.*—A grant made under sub-  
24 section (a)—

25 (1) *shall be for an initial period of 5 years; and*

1           (2) *may be renewed for additional 5-year periods*  
2       *on the basis of—*

3           (A) *satisfactory performance in meeting the*  
4       *duties outlined in subsection (b); and*

5           (B) *any other requirements specified by the*  
6       *Secretary.*

7   **SEC. 619. GEOPOWERING AMERICA.**

8       *The Secretary shall expand the Department of Ener-*  
9   *gy's GeoPowering the West program to extend its geo-*  
10   *thermal technology transfer activities throughout the entire*  
11   *United States. The program shall be renamed*  
12   *"GeoPowering America". The program shall continue to be*  
13   *based in the Department of Energy office in Golden, Colo-*  
14   *rado.*

15   **SEC. 620. EDUCATIONAL PILOT PROGRAM.**

16       *The Secretary shall seek to award grant funding, on*  
17   *a competitive basis, to an institution of higher education*  
18   *for a geothermal-powered energy generation facility on the*  
19   *institution's campus. The purpose of the facility shall be*  
20   *to provide electricity and space heating. The facility shall*  
21   *also serve as an educational resource to students in relevant*  
22   *fields of study, and the data generated by the facility shall*  
23   *be available to students and the general public. The total*  
24   *funding award shall not exceed \$2,000,000.*

1 **SEC. 621. REPORTS.**

2       (a) *REPORTS ON ADVANCED USES OF GEOTHERMAL*  
 3 *ENERGY.*—*Not later than 3 years and 5 years after the date*  
 4 *of enactment of this Act, the Secretary shall report to the*  
 5 *Committee on Science and Technology of the House of Rep-*  
 6 *resentatives and the Committee on Energy and Natural Re-*  
 7 *sources of the Senate on advanced concepts and technologies*  
 8 *to maximize the geothermal resource potential of the United*  
 9 *States. The reports shall include—*

10               (1) *the use of carbon dioxide as an alternative*  
 11 *geofluid with potential carbon sequestration benefits;*

12               (2) *mineral recovery from geofluids;*

13               (3) *use of geothermal energy to produce hydro-*  
 14 *gen;*

15               (4) *use of geothermal energy to produce biofuels;*

16               (5) *use of geothermal heat for oil recovery from*  
 17 *oil shales and tar sands; and*

18               (6) *other advanced geothermal technologies, in-*  
 19 *cluding advanced drilling technologies and advanced*  
 20 *power conversion technologies.*

21       (b) *PROGRESS REPORTS.*—(1) *Not later than 36*  
 22 *months after the date of enactment of this Act, the Secretary*  
 23 *shall submit to the Committee on Science and Technology*  
 24 *of the House of Representatives and the Committee on En-*  
 25 *ergy and Natural Resources of the Senate an interim report*  
 26 *describing the progress made under this subtitle. At the end*

1 of 60 months, the Secretary shall submit to Congress a re-  
2 port on the results of projects undertaken under this subtitle  
3 and other such information the Secretary considers appro-  
4 priate.

5 (2) As necessary, the Secretary shall report to the Con-  
6 gress on any legal, regulatory, or other barriers encountered  
7 that hinder economic development of these resources, and  
8 provide recommendations on legislative or other actions  
9 needed to address such impediments.

10 **SEC. 622. APPLICABILITY OF OTHER LAWS.**

11 Nothing in this subtitle shall be construed as waiving,  
12 modifying, or superseding the applicability of any require-  
13 ment under any environmental or other Federal or State  
14 law. To the extent that activities authorized in this subtitle  
15 take place in coastal and ocean areas, the Secretary shall  
16 consult with the Secretary of Commerce, acting through the  
17 Under Secretary of Commerce for Oceans and Atmosphere,  
18 regarding the potential marine environmental impacts and  
19 measures to address such impacts.

20 **SEC. 623. AUTHORIZATION OF APPROPRIATIONS.**

21 There are authorized to be appropriated to the Sec-  
22 retary to carry out this subtitle \$90,000,000 for each of the  
23 fiscal years 2008 through 2012, of which \$10,000,000 for  
24 each fiscal year shall be for carrying out section 616. There  
25 are also authorized to be appropriated to the Secretary for

1 *the Intermountain West Geothermal Consortium \$5,000,000*  
2 *for each of the fiscal years 2008 through 2012.*

3 **SEC. 624. INTERNATIONAL GEOTHERMAL ENERGY DEVEL-**  
4 **OPMENT.**

5 (a) *IN GENERAL.*—*The Secretary of Energy, in coordi-*  
6 *nation with other appropriate Federal and multilateral*  
7 *agencies (including the United States Agency for Inter-*  
8 *national Development) shall support international collabo-*  
9 *rative efforts to promote the research, development, and de-*  
10 *ployment of geothermal technologies used to develop hydro-*  
11 *thermal and enhanced geothermal system resources, includ-*  
12 *ing as partners (as appropriate) the African Rift Geo-*  
13 *thermal Development Facility, Australia, China, France,*  
14 *the Republic of Iceland, India, Japan, and the United*  
15 *Kingdom.*

16 (b) *UNITED STATES TRADE AND DEVELOPMENT*  
17 *AGENCY.*—*The Director of the United States Trade and De-*  
18 *velopment Agency may—*

19 (1) *encourage participation by United States*  
20 *firms in actions taken to carry out subsection (a);*  
21 *and*

22 (2) *provide grants and other financial support*  
23 *for feasibility and resource assessment studies con-*  
24 *ducted in, or intended to benefit, less developed coun-*  
25 *tries.*

1       (c) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 2 *authorized to be appropriated to carry out this section*  
 3 *\$5,000,000 for each of fiscal years 2008 through 2012.*

4 **SEC. 625. HIGH COST REGION GEOTHERMAL ENERGY**  
 5 **GRANT PROGRAM.**

6       (a) *DEFINITIONS.*—*In this section:*

7           (1) *ELIGIBLE ENTITY.*—*The term “eligible enti-*  
 8 *ty” means—*

9                   (A) *a utility;*

10                   (B) *an electric cooperative;*

11                   (C) *a State;*

12                   (D) *a political subdivision of a State;*

13                   (E) *an Indian tribe; or*

14                   (F) *a Native corporation.*

15           (2) *HIGH-COST REGION.*—*The term “high-cost*  
 16 *region” means a region in which the average cost of*  
 17 *electrical power exceeds 150 percent of the national*  
 18 *average retail cost, as determined by the Secretary.*

19       (b) *PROGRAM.*—*The Secretary shall use amounts made*  
 20 *available to carry out this section to make grants to eligible*  
 21 *entities for activities described in subsection (c).*

22       (c) *ELIGIBLE ACTIVITIES.*—*An eligible entity may use*  
 23 *grant funds under this section, with respect to a geothermal*  
 24 *energy project in a high-cost region, only—*

1           (1) *to conduct a feasibility study, including a*  
 2           *study of exploration, geochemical testing, geomagnetic*  
 3           *surveys, geologic information gathering, baseline envi-*  
 4           *ronmental studies, well drilling, resource character-*  
 5           *ization, permitting, and economic analysis;*

6           (2) *for design and engineering costs, relating to*  
 7           *the project; and*

8           (3) *to demonstrate and promote commercial ap-*  
 9           *plication of technologies related to geothermal energy*  
 10          *as part of the project.*

11          (d) *COST SHARING.*—*The cost-sharing requirements of*  
 12          *section 988 of the Energy Policy Act of 2005 (42 U.S.C.*  
 13          *16352) shall apply to any project carried out under this*  
 14          *section.*

15          (e) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 16          *authorized to be appropriated such sums as are necessary*  
 17          *to carry out this section.*

18       ***Subtitle                   C—Marine                   and***  
 19       ***Hydrokinetic Renewable Energy***  
 20       ***Technologies***

21       ***SEC. 631. SHORT TITLE.***

22          *This subtitle may be cited as the “Marine and*  
 23          *Hydrokinetic Renewable Energy Research and Development*  
 24          *Act”.*

1 **SEC. 632. DEFINITION.**

2 *For purposes of this subtitle, the term “marine and*  
 3 *hydrokinetic renewable energy” means electrical energy*  
 4 *from—*

5 *(1) waves, tides, and currents in oceans, estu-*  
 6 *aries, and tidal areas;*

7 *(2) free flowing water in rivers, lakes, and*  
 8 *streams;*

9 *(3) free flowing water in man-made channels;*  
 10 *and*

11 *(4) differentials in ocean temperature (ocean*  
 12 *thermal energy conversion).*

13 *The term “marine and hydrokinetic renewable energy” does*  
 14 *not include energy from any source that uses a dam, diver-*  
 15 *sionary structure, or impoundment for electric power pur-*  
 16 *poses.*

17 **SEC. 633. MARINE AND HYDROKINETIC RENEWABLE EN-**  
 18 **ERGY RESEARCH AND DEVELOPMENT.**

19 *(a) IN GENERAL.—The Secretary, in consultation with*  
 20 *the Secretary of the Interior and the Secretary of Com-*  
 21 *merce, acting through the Under Secretary of Commerce for*  
 22 *Oceans and Atmosphere, shall establish a program of re-*  
 23 *search, development, demonstration, and commercial appli-*  
 24 *cation to expand marine and hydrokinetic renewable energy*  
 25 *production, including programs to—*



1           (1) *study and compare existing marine and*  
2           *hydrokinetic renewable energy technologies;*

3           (2) *research, develop, and demonstrate marine*  
4           *and hydrokinetic renewable energy systems and tech-*  
5           *nologies;*

6           (3) *reduce the manufacturing and operation*  
7           *costs of marine and hydrokinetic renewable energy*  
8           *technologies;*

9           (4) *investigate efficient and reliable integration*  
10          *with the utility grid and intermittency issues;*

11          (5) *advance wave forecasting technologies;*

12          (6) *conduct experimental and numerical mod-*  
13          *eling for optimization of marine energy conversion*  
14          *devices and arrays;*

15          (7) *increase the reliability and survivability of*  
16          *marine and hydrokinetic renewable energy tech-*  
17          *nologies, including development of corrosive-resistant*  
18          *materials;*

19          (8) *identify, in conjunction with the Secretary of*  
20          *Commerce, acting through the Under Secretary of*  
21          *Commerce for Oceans and Atmosphere, and other*  
22          *Federal agencies as appropriate, the potential envi-*  
23          *ronmental impacts, including potential impacts on*  
24          *fisheries and other marine resources, of marine and*  
25          *hydrokinetic renewable energy technologies, measures*

1       to prevent adverse impacts, and technologies and  
2       other means available for monitoring and deter-  
3       mining environmental impacts;

4               (9) identify, in conjunction with the Secretary of  
5       the Department in which the United States Coast  
6       Guard is operating, acting through the Commandant  
7       of the United States Coast Guard, the potential navi-  
8       gational impacts of marine and hydrokinetic renew-  
9       able energy technologies and measures to prevent ad-  
10      verse impacts on navigation;

11              (10) develop power measurement standards for  
12      marine and hydrokinetic renewable energy;

13              (11) develop identification standards for marine  
14      and hydrokinetic renewable energy devices;

15              (12) address standards development, demonstra-  
16      tion, and technology transfer for advanced systems en-  
17      gineering and system integration methods to identify  
18      critical interfaces;

19              (13) identifying opportunities for cross fertiliza-  
20      tion and development of economies of scale between  
21      other renewable sources and marine and hydrokinetic  
22      renewable energy sources; and

23              (14) providing public information and oppor-  
24      tunity for public comment concerning all technologies.

1       (b) *REPORT.*—Not later than 18 months after the date  
 2 of enactment of this Act, the Secretary, in conjunction with  
 3 the Secretary of Commerce, acting through the Undersecre-  
 4 tary of Commerce for Oceans and Atmosphere, and the Sec-  
 5 retary of the Interior, shall provide to the Congress a report  
 6 that addresses—

7           (1) the potential environmental impacts, includ-  
 8 ing impacts to fisheries and marine resources, of ma-  
 9 rine and hydrokinetic renewable energy technologies;

10          (2) options to prevent adverse environmental im-  
 11 pacts;

12          (3) the potential role of monitoring and adaptive  
 13 management in identifying and addressing any ad-  
 14 verse environmental impacts; and

15          (4) the necessary components of such an adaptive  
 16 management program.

17 **SEC. 634. NATIONAL MARINE RENEWABLE ENERGY RE-**  
 18 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**  
 19 **TION CENTERS.**

20       (a) *CENTERS.*—The Secretary shall award grants to  
 21 institutions of higher education (or consortia thereof) for  
 22 the establishment of 1 or more National Marine Renewable  
 23 Energy Research, Development, and Demonstration Cen-  
 24 ters. In selecting locations for Centers, the Secretary shall  
 25 consider sites that meet one of the following criteria:

1           (1) *Hosts an existing marine renewable energy*  
2           *research and development program in coordination*  
3           *with an engineering program at an institution of*  
4           *higher education.*

5           (2) *Has proven expertise to support environ-*  
6           *mental and policy-related issues associated with har-*  
7           *nessing of energy in the marine environment.*

8           (3) *Has access to and utilizes the marine re-*  
9           *sources in the Gulf of Mexico, the Atlantic Ocean, or*  
10          *the Pacific Ocean.*

11 *The Secretary may give special consideration to historically*  
12 *black colleges and universities and land grant universities*  
13 *that also meet one of these criteria. In establishing criteria*  
14 *for the selection of the Centers, the Secretary shall consult*  
15 *with the Secretary of Commerce, acting through the Under*  
16 *Secretary of Commerce for Oceans and Atmosphere, on the*  
17 *criteria related to ocean waves, tides, and currents includ-*  
18 *ing those for advancing wave forecasting technologies, ocean*  
19 *temperature differences, and studying the compatibility of*  
20 *marine renewable energy technologies and systems with the*  
21 *environment, fisheries, and other marine resources.*

22          (b) *PURPOSES.—The Centers shall advance research,*  
23 *development, demonstration, and commercial application of*  
24 *marine renewable energy, and shall serve as an information*  
25 *clearinghouse for the marine renewable energy industry,*

1 *collecting and disseminating information on best practices*  
2 *in all areas related to developing and managing enhanced*  
3 *marine renewable energy systems resources.*

4 *(c) DEMONSTRATION OF NEED.—When applying for a*  
5 *grant under this section, an applicant shall include a de-*  
6 *scription of why Federal support is necessary for the Center,*  
7 *including evidence that the research of the Center will not*  
8 *be conducted in the absence of Federal support.*

9 **SEC. 635. APPLICABILITY OF OTHER LAWS.**

10 *Nothing in this subtitle shall be construed as waiving,*  
11 *modifying, or superseding the applicability of any require-*  
12 *ment under any environmental or other Federal or State*  
13 *law.*

14 **SEC. 636. AUTHORIZATION OF APPROPRIATIONS.**

15 *There are authorized to be appropriated to the Sec-*  
16 *retary to carry out this subtitle \$50,000,000 for each of the*  
17 *fiscal years 2008 through 2012, except that no funds shall*  
18 *be appropriated under this section for activities that are*  
19 *receiving funds under section 931(a)(2)(E)(i) of the Energy*  
20 *Policy Act of 2005 (42 U.S.C. 16231(a)(2)(E)(i)).*

1       ***Subtitle D—Energy Storage for***  
 2       ***Transportation and Electric Power***

3       ***SEC. 641. ENERGY STORAGE COMPETITIVENESS.***

4           (a) *SHORT TITLE.*—*This section may be cited as the*  
 5       *“United States Energy Storage Competitiveness Act of*  
 6       *2007”.*

7           (b) *DEFINITIONS.*—*In this section:*

8               (1) *COUNCIL.*—*The term “Council” means the*  
 9       *Energy Storage Advisory Council established under*  
 10       *subsection (e).*

11              (2) *COMPRESSED AIR ENERGY STORAGE.*—*The*  
 12       *term “compressed air energy storage” means, in the*  
 13       *case of an electricity grid application, the storage of*  
 14       *energy through the compression of air.*

15              (3) *ELECTRIC DRIVE VEHICLE.*—*The term “elec-*  
 16       *tric drive vehicle” means—*

17                   (A) *a vehicle that uses an electric motor for*  
 18                   *all or part of the motive power of the vehicle, in-*  
 19                   *cluding battery electric, hybrid electric, plug-in*  
 20                   *hybrid electric, fuel cell, and plug-in fuel cell ve-*  
 21                   *hicles and rail transportation vehicles; or*

22                   (B) *mobile equipment that uses an electric*  
 23                   *motor to replace an internal combustion engine*  
 24                   *for all or part of the work of the equipment.*

1           (4) *ISLANDING*.—The term “islanding” means a  
 2           distributed generator or energy storage device con-  
 3           tinuing to power a location in the absence of electric  
 4           power from the primary source.

5           (5) *FLYWHEEL*.—The term “flywheel” means, in  
 6           the case of an electricity grid application, a device  
 7           used to store rotational kinetic energy.

8           (6) *MICROGRID*.—The term “microgrid” means  
 9           an integrated energy system consisting of inter-  
 10          connected loads and distributed energy resources (in-  
 11          cluding generators and energy storage devices), which  
 12          as an integrated system can operate in parallel with  
 13          the utility grid or in an intentional islanding mode.

14          (7) *SELF-HEALING GRID*.—The term “self-heal-  
 15          ing grid” means a grid that is capable of automati-  
 16          cally anticipating and responding to power system  
 17          disturbances (including the isolation of failed sections  
 18          and components), while optimizing the performance  
 19          and service of the grid to customers.

20          (8) *SPINNING RESERVE SERVICES*.—The term  
 21          “spinning reserve services” means a quantity of elec-  
 22          tric generating capacity in excess of the quantity  
 23          needed to meet peak electric demand.

24          (9)           *ULTRACAPACITOR*.—The           term  
 25          “ultracapacitor” means an energy storage device that

1        *has a power density comparable to a conventional ca-*  
2        *pacitor but is capable of exceeding the energy density*  
3        *of a conventional capacitor by several orders of mag-*  
4        *nitude.*

5        *(c) PROGRAM.—The Secretary shall carry out a re-*  
6        *search, development, and demonstration program to sup-*  
7        *port the ability of the United States to remain globally com-*  
8        *petitive in energy storage systems for electric drive vehicles,*  
9        *stationary applications, and electricity transmission and*  
10       *distribution.*

11       *(d) COORDINATION.—In carrying out the activities of*  
12       *this section, the Secretary shall coordinate relevant efforts*  
13       *with appropriate Federal agencies, including the Depart-*  
14       *ment of Transportation.*

15       *(e) ENERGY STORAGE ADVISORY COUNCIL.—*

16                *(1) ESTABLISHMENT.—Not later than 90 days*  
17        *after the date of enactment of this Act, the Secretary*  
18        *shall establish an Energy Storage Advisory Council.*

19                *(2) COMPOSITION.—*

20                        *(A) IN GENERAL.—Subject to subparagraph*  
21        *(B), the Council shall consist of not less than 15*  
22        *individuals appointed by the Secretary, based on*  
23        *recommendations of the National Academy of*  
24        *Sciences.*



1                   (B) *ENERGY STORAGE INDUSTRY.*—*The*  
 2                   *Council shall consist primarily of representatives*  
 3                   *of the energy storage industry of the United*  
 4                   *States.*

5                   (C) *CHAIRPERSON.*—*The Secretary shall se-*  
 6                   *lect a Chairperson for the Council from among*  
 7                   *the members appointed under subparagraph (A).*

8                   (3) *MEETINGS.*—

9                   (A) *IN GENERAL.*—*The Council shall meet*  
 10                  *not less than once a year.*

11                  (B) *FEDERAL ADVISORY COMMITTEE ACT.*—  
 12                  *The Federal Advisory Committee Act (5 U.S.C.*  
 13                  *App.) shall apply to a meeting of the Council.*

14                  (4) *PLANS.*—*No later than 1 year after the date*  
 15                  *of enactment of this Act and every 5 years thereafter,*  
 16                  *the Council, in conjunction with the Secretary, shall*  
 17                  *develop a 5-year plan for integrating basic and ap-*  
 18                  *plied research so that the United States retains a*  
 19                  *globally competitive domestic energy storage industry*  
 20                  *for electric drive vehicles, stationary applications,*  
 21                  *and electricity transmission and distribution.*

22                  (5) *REVIEW.*—*The Council shall—*

23                         (A) *assess, every 2 years, the performance of*  
 24                         *the Department in meeting the goals of the plans*  
 25                         *developed under paragraph (4); and*

1                   (B) make specific recommendations to the  
 2                   Secretary on programs or activities that should  
 3                   be established or terminated to meet those goals.

4           (f) *BASIC RESEARCH PROGRAM.*—

5                   (1) *BASIC RESEARCH.*—*The Secretary shall con-*  
 6                   *duct a basic research program on energy storage sys-*  
 7                   *tems to support electric drive vehicles, stationary ap-*  
 8                   *plications, and electricity transmission and distribu-*  
 9                   *tion, including—*

10                           (A) *materials design;*

11                           (B) *materials synthesis and characteriza-*  
 12                   *tion;*

13                           (C) *electrode-active materials, including*  
 14                   *electrolytes and bioelectrolytes;*

15                           (D) *surface and interface dynamics;*

16                           (E) *modeling and simulation; and*

17                           (F) *thermal behavior and life degradation*  
 18                   *mechanisms.*

19                   (2) *NANOSCIENCE CENTERS.*—*The Secretary, in*  
 20                   *cooperation with the Council, shall coordinate the ac-*  
 21                   *tivities of the nanoscience centers of the Department*  
 22                   *to help the energy storage research centers of the De-*  
 23                   *partment maintain a globally competitive posture in*  
 24                   *energy storage systems for electric drive vehicles, sta-*

1        *tionary applications, and electricity transmission*  
 2        *and distribution.*

3            (3) *FUNDING.*—*For activities carried out under*  
 4        *this subsection, in addition to funding activities at*  
 5        *National Laboratories, the Secretary shall award*  
 6        *funds to, and coordinate activities with, a range of*  
 7        *stakeholders including the public, private, and aca-*  
 8        *demic sectors.*

9        (g) *APPLIED RESEARCH PROGRAM.*—

10            (1) *IN GENERAL.*—*The Secretary shall conduct*  
 11        *an applied research program on energy storage sys-*  
 12        *tems to support electric drive vehicles, stationary ap-*  
 13        *plications, and electricity transmission and distribu-*  
 14        *tion technologies, including—*

15                    (A) *ultracapacitors;*

16                    (B) *flywheels;*

17                    (C) *batteries and battery systems (including*  
 18        *flow batteries);*

19                    (D) *compressed air energy systems;*

20                    (E) *power conditioning electronics;*

21                    (F) *manufacturing technologies for energy*  
 22        *storage systems;*

23                    (G) *thermal management systems; and*

24                    (H) *hydrogen as an energy storage medium.*

1           (2) *FUNDING.*—*For activities carried out under*  
 2           *this subsection, in addition to funding activities at*  
 3           *National Laboratories, the Secretary shall provide*  
 4           *funds to, and coordinate activities with, a range of*  
 5           *stakeholders, including the public, private, and aca-*  
 6           *demic sectors.*

7           (h) *ENERGY STORAGE RESEARCH CENTERS.*—

8           (1) *IN GENERAL.*—*The Secretary shall establish,*  
 9           *through competitive bids, not more than 4 energy*  
 10          *storage research centers to translate basic research*  
 11          *into applied technologies to advance the capability of*  
 12          *the United States to maintain a globally competitive*  
 13          *posture in energy storage systems for electric drive ve-*  
 14          *hicles, stationary applications, and electricity trans-*  
 15          *mission and distribution.*

16          (2) *PROGRAM MANAGEMENT.*—*The centers shall*  
 17          *be managed by the Under Secretary for Science of the*  
 18          *Department.*

19          (3) *PARTICIPATION AGREEMENTS.*—*As a condi-*  
 20          *tion of participating in a center, a participant shall*  
 21          *enter into a participation agreement with the center*  
 22          *that requires that activities conducted by the partici-*  
 23          *phant for the center promote the goal of enabling the*  
 24          *United States to compete successfully in global energy*  
 25          *storage markets.*

1           (4) *PLANS*.—A center shall conduct activities  
 2           that promote the achievement of the goals of the plans  
 3           of the Council under subsection (e)(4).

4           (5) *NATIONAL LABORATORIES*.—A national lab-  
 5           oratory (as defined in section 2 of the Energy Policy  
 6           Act of 2005 (42 U.S.C. 15801)) may participate in  
 7           a center established under this subsection, including a  
 8           cooperative research and development agreement (as  
 9           defined in section 12(d) of the Stevenson-Wydler  
 10          Technology Innovation Act of 1980 (15 U.S.C.  
 11          3710a(d))).

12          (6) *DISCLOSURE*.—Section 623 of the Energy  
 13          Policy Act of 1992 (42 U.S.C. 13293) may apply to  
 14          any project carried out through a grant, contract, or  
 15          cooperative agreement under this subsection.

16          (7) *INTELLECTUAL PROPERTY*.—In accordance  
 17          with section 202(a)(ii) of title 35, United States Code,  
 18          section 152 of the Atomic Energy Act of 1954 (42  
 19          U.S.C. 2182), and section 9 of the Federal Nonnuclear  
 20          Energy Research and Development Act of 1974 (42  
 21          U.S.C. 5908), the Secretary may require, for any new  
 22          invention developed under this subsection, that—

23                (A) if an industrial participant is active in  
 24                a energy storage research center established  
 25                under this subsection relating to the advance-

1        *ment of energy storage technologies carried out,*  
2        *in whole or in part, with Federal funding, the*  
3        *industrial participant be granted the first option*  
4        *to negotiate with the invention owner, at least in*  
5        *the field of energy storage technologies, nonexclu-*  
6        *sive licenses, and royalties on terms that are rea-*  
7        *sonable, as determined by the Secretary;*

8            *(B) if 1 or more industry participants are*  
9        *active in a center, during a 2-year period begin-*  
10       *ning on the date on which an invention is*  
11       *made—*

12           *(i) the patent holder shall not negotiate*  
13        *any license or royalty agreement with any*  
14        *entity that is not an industrial participant*  
15        *under this subsection; and*

16           *(ii) the patent holder shall negotiate*  
17        *nonexclusive licenses and royalties in good*  
18        *faith with any interested industrial partici-*  
19        *pant under this subsection; and*

20           *(C) the new invention be developed under*  
21        *such other terms as the Secretary determines to*  
22        *be necessary to promote the accelerated commer-*  
23        *cialization of inventions made under this sub-*  
24        *section to advance the capability of the United*

1           *States to successfully compete in global energy*  
 2           *storage markets.*

3           *(i) ENERGY STORAGE SYSTEMS DEMONSTRATIONS.—*

4                 *(1) IN GENERAL.—The Secretary shall carry out*  
 5           *a program of new demonstrations of advanced energy*  
 6           *storage systems.*

7                 *(2) SCOPE.—The demonstrations shall—*

8                     *(A) be regionally diversified; and*

9                     *(B) expand on the existing technology dem-*  
 10           *onstration program of the Department.*

11                 *(3) STAKEHOLDERS.—In carrying out the dem-*  
 12           *onstrations, the Secretary shall, to the maximum ex-*  
 13           *tent practicable, include the participation of a range*  
 14           *of stakeholders, including—*

15                     *(A) rural electric cooperatives;*

16                     *(B) investor owned utilities;*

17                     *(C) municipally owned electric utilities;*

18                     *(D) energy storage systems manufacturers;*

19                     *(E) electric drive vehicle manufacturers;*

20                     *(F) the renewable energy production indus-*  
 21           *try;*

22                     *(G) State or local energy offices;*

23                     *(H) the fuel cell industry; and*

24                     *(I) institutions of higher education.*

1           (4) *OBJECTIVES.—Each of the demonstrations*  
2           *shall include 1 or more of the following:*

3                   (A) *Energy storage to improve the feasi-*  
4                   *bility of microgrids or islanding, or transmission*  
5                   *and distribution capability, to improve reli-*  
6                   *ability in rural areas.*

7                   (B) *Integration of an energy storage system*  
8                   *with a self-healing grid.*

9                   (C) *Use of energy storage to improve secu-*  
10                  *rity to emergency response infrastructure and*  
11                  *ensure availability of emergency backup power*  
12                  *for consumers.*

13                  (D) *Integration with a renewable energy*  
14                  *production source, at the source or away from*  
15                  *the source.*

16                  (E) *Use of energy storage to provide ancil-*  
17                    
18                  *for grid management.*

19                  (F) *Advancement of power conversion sys-*  
20                  *tems to make the systems smarter, more efficient,*  
21                  *able to communicate with other inverters, and*  
22                  *able to control voltage.*

23                  (G) *Use of energy storage to optimize trans-*  
24                  *mission and distribution operation and power*  
25                  *quality, which could address overloaded lines*



1           *and maintenance of transformers and sub-*  
 2           *stations.*

3           *(H) Use of advanced energy storage for peak*  
 4           *load management of homes, businesses, and the*  
 5           *grid.*

6           *(I) Use of energy storage devices to store en-*  
 7           *ergy during nonpeak generation periods to make*  
 8           *better use of existing grid assets.*

9           *(j) VEHICLE ENERGY STORAGE DEMONSTRATION.—*

10           *(1) IN GENERAL.—The Secretary shall carry out*  
 11           *a program of electric drive vehicle energy storage*  
 12           *technology demonstrations.*

13           *(2) CONSORTIA.—The technology demonstrations*  
 14           *shall be conducted through consortia, which may*  
 15           *include—*

16           *(A) energy storage systems manufacturers*  
 17           *and suppliers of the manufacturers;*

18           *(B) electric drive vehicle manufacturers;*

19           *(C) rural electric cooperatives;*

20           *(D) investor owned utilities;*

21           *(E) municipal and rural electric utilities;*

22           *(F) State and local governments;*

23           *(G) metropolitan transportation authorities;*

24           *and*

25           *(H) institutions of higher education.*

1           (3) *OBJECTIVES.*—*The program shall dem-*  
 2           *onstrate 1 or more of the following:*

3                   (A) *Novel, high capacity, high efficiency en-*  
 4                   *ergy storage, charging, and control systems,*  
 5                   *along with the collection of data on performance*  
 6                   *characteristics, such as battery life, energy stor-*  
 7                   *age capacity, and power delivery capacity.*

8                   (B) *Advanced onboard energy management*  
 9                   *systems and highly efficient battery cooling sys-*  
 10                   *tems.*

11                   (C) *Integration of those systems on a proto-*  
 12                   *type vehicular platform, including with*  
 13                   *drivetrain systems for passenger, commercial,*  
 14                   *and nonroad electric drive vehicles.*

15                   (D) *New technologies and processes that re-*  
 16                   *duce manufacturing costs.*

17                   (E) *Integration of advanced vehicle tech-*  
 18                   *nologies with electricity distribution system and*  
 19                   *smart metering technology.*

20                   (F) *Control systems that minimize emis-*  
 21                   *sions profiles in cases in which clean diesel en-*  
 22                   *gines are part of a plug-in hybrid drive system.*

23           (k) *SECONDARY APPLICATIONS AND DISPOSAL OF*  
 24           *ELECTRIC DRIVE VEHICLE BATTERIES.*—*The Secretary*

1 shall carry out a program of research, development, and  
 2 demonstration of—

- 3 (1) secondary applications of energy storage de-  
 4 vices following service in electric drive vehicles; and
- 5 (2) technologies and processes for final recycling  
 6 and disposal of the devices.

7 (l) *COST SHARING.*—The Secretary shall carry out the  
 8 programs established under this section in accordance with  
 9 section 988 of the Energy Policy Act of 2005 (42 U.S.C.  
 10 16352).

11 (m) *MERIT REVIEW OF PROPOSALS.*—The Secretary  
 12 shall carry out the programs established under subsections  
 13 (i), (j), and (k) in accordance with section 989 of the En-  
 14 ergy Policy Act of 2005 (42 U.S.C. 16353).

15 (n) *COORDINATION AND NONDUPLICATION.*—To the  
 16 maximum extent practicable, the Secretary shall coordinate  
 17 activities under this section with other programs and lab-  
 18 oratories of the Department and other Federal research pro-  
 19 grams.

20 (o) *REVIEW BY NATIONAL ACADEMY OF SCIENCES.*—  
 21 On the business day that is 5 years after the date of enact-  
 22 ment of this Act, the Secretary shall offer to enter into an  
 23 arrangement with the National Academy of Sciences to as-  
 24 sess the performance of the Department in carrying out this  
 25 section.

1       (p) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
2 *authorized to be appropriated to carry out—*

3           (1) *the basic research program under subsection*  
4 *(f) \$50,000,000 for each of fiscal years 2009 through*  
5 *2018;*

6           (2) *the applied research program under sub-*  
7 *section (g) \$80,000,000 for each of fiscal years 2009*  
8 *through 2018; and;*

9           (3) *the energy storage research center program*  
10 *under subsection (h) \$100,000,000 for each of fiscal*  
11 *years 2009 through 2018;*

12           (4) *the energy storage systems demonstration*  
13 *program under subsection (i) \$30,000,000 for each of*  
14 *fiscal years 2009 through 2018;*

15           (5) *the vehicle energy storage demonstration pro-*  
16 *gram under subsection (j) \$30,000,000 for each of fis-*  
17 *cal years 2009 through 2018; and*

18           (6) *the secondary applications and disposal of*  
19 *electric drive vehicle batteries program under sub-*  
20 *section (k) \$5,000,000 for each of fiscal years 2009*  
21 *through 2018.*

***Subtitle E—Miscellaneous  
Provisions***

***SEC. 651. LIGHTWEIGHT MATERIALS RESEARCH AND DEVELOPMENT.***

*(a) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary of Energy shall establish a program to determine ways in which the weight of motor vehicles could be reduced to improve fuel efficiency without compromising passenger safety by conducting research, development, and demonstration relating to—*

*(1) the development of new materials (including cast metal composite materials formed by autocombustion synthesis) and material processes that yield a higher strength-to-weight ratio or other properties that reduce vehicle weight; and*

*(2) reducing the cost of—*

*(A) lightweight materials (including high-strength steel alloys, aluminum, magnesium, metal composites, and carbon fiber reinforced polymer composites) with the properties required for construction of lighter-weight vehicles; and*

*(B) materials processing, automated manufacturing, joining, and recycling lightweight materials for high-volume applications.*

1       (b) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 2 *authorized to be appropriated to carry out this section*  
 3 *\$80,000,000 for the period of fiscal years 2008 through*  
 4 *2012.*

5 **SEC. 652. COMMERCIAL INSULATION DEMONSTRATION**  
 6 **PROGRAM.**

7       (a) *DEFINITIONS.*—*In this section:*

8           (1) *ADVANCED INSULATION.*—*The term “ad-*  
 9 *vanced insulation” means insulation that has an R*  
 10 *value of not less than R35 per inch.*

11          (2) *COVERED REFRIGERATION UNIT.*—*The term*  
 12 *“covered refrigeration unit” means any—*

13                   (A) *commercial refrigerated truck;*

14                   (B) *commercial refrigerated trailer; or*

15                   (C) *commercial refrigerator, freezer, or re-*  
 16 *frigerator-freezer described in section 342(c) of*  
 17 *the Energy Policy and Conservation Act (42*  
 18 *U.S.C. 6313(c)).*

19       (b) *REPORT.*—*Not later than 90 days after the date*  
 20 *of enactment of this Act, the Secretary shall submit to Con-*  
 21 *gress a report that includes an evaluation of—*

22           (1) *the state of technological advancement of ad-*  
 23 *vanced insulation; and*

1           (2) *the projected amount of cost savings that*  
 2           *would be generated by implementing advanced insula-*  
 3           *tion into covered refrigeration units.*

4           (c) *DEMONSTRATION PROGRAM.*—

5           (1) *ESTABLISHMENT.*—*If the Secretary deter-*  
 6           *mines in the report described in subsection (b) that*  
 7           *the implementation of advanced insulation into cov-*  
 8           *ered refrigeration units would generate an economi-*  
 9           *cally justifiable amount of cost savings, the Secretary,*  
 10          *in cooperation with manufacturers of covered refrig-*  
 11          *eration units, shall establish a demonstration pro-*  
 12          *gram under which the Secretary shall demonstrate the*  
 13          *cost-effectiveness of advanced insulation.*

14          (2) *DISCLOSURE.*—*The Secretary may, for a pe-*  
 15          *riod of up to five years after an award is granted*  
 16          *under the demonstration program, exempt from man-*  
 17          *datory disclosure under section 552 of title 5, United*  
 18          *States Code (popularly known as the Freedom of In-*  
 19          *formation Act) information that the Secretary deter-*  
 20          *mines would be a privileged or confidential trade se-*  
 21          *cret or commercial or financial information under*  
 22          *subsection (b)(4) of such section if the information*  
 23          *had been obtained from a non-Government party.*

4 (d) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
5 *authorized to be appropriated to carry out this section*  
6 *\$8,000,000 for the period of fiscal years 2009 through 2014.*

9            *Section 402(b)(1)(B)(ii) of the Energy Policy Act of*  
10   *2005 (42 U.S.C. 15962(b)(1)(B)(ii)) is amended by striking*  
11   *subclause (I) and inserting the following:*

17 **SEC. 654. H-PRIZE.**

18        *Section 1008 of the Energy Policy Act of 2005 (42*  
19        *U.S.C. 16396) is amended by adding at the end the fol-*  
20        *lowing new subsection:*

21           “(f) *H-PRIZE*.—

22 “(1) *PRIZE AUTHORITY.*—

23 “(A) *IN GENERAL.*—As part of the program  
24 under this section, the Secretary shall carry out  
25 a program to competitively award cash prizes in



1       *conformity with this subsection to advance the*  
 2       *research, development, demonstration, and com-*  
 3       *mercial application of hydrogen energy tech-*  
 4       *nologies.*

5               “(B) *ADVERTISING AND SOLICITATION OF*  
 6       *COMPETITORS.—*

7               “(i) *ADVERTISING.—The Secretary*  
 8       *shall widely advertise prize competitions*  
 9       *under this subsection to encourage broad*  
 10       *participation, including by individuals,*  
 11       *universities (including historically Black*  
 12       *colleges and universities and other minority*  
 13       *serving institutions), and large and small*  
 14       *businesses (including businesses owned or*  
 15       *controlled by socially and economically dis-*  
 16       *advantaged persons).*

17              “(ii) *ANNOUNCEMENT THROUGH FED-*  
 18       *ERAL REGISTER NOTICE.—The Secretary*  
 19       *shall announce each prize competition*  
 20       *under this subsection by publishing a notice*  
 21       *in the Federal Register. This notice shall*  
 22       *include essential elements of the competition*  
 23       *such as the subject of the competition, the*  
 24       *duration of the competition, the eligibility*  
 25       *requirements for participation in the com-*

petition, the process for participants to register for the competition, the amount of the prize, and the criteria for awarding the prize.

“(C) ADMINISTERING THE COMPETITIONS.—

The Secretary shall enter into an agreement with a private, nonprofit entity to administer the prize competitions under this subsection, subject to the provisions of this subsection (in this subsection referred to as the ‘administering entity’). The duties of the administering entity under the agreement shall include—

“(i) advertising prize competitions under this subsection and their results;

“(ii) raising funds from private entities and individuals to pay for administrative costs and to contribute to cash prizes, including funds provided in exchange for the right to name a prize awarded under this subsection;

“(iii) developing, in consultation with and subject to the final approval of the Secretary, the criteria for selecting winners in prize competitions under this subsection, based on goals provided by the Secretary;

1           “(iv) determining, in consultation with  
2           the Secretary, the appropriate amount and  
3           funding sources for each prize to be award-  
4           ed under this subsection, subject to the final  
5           approval of the Secretary with respect to  
6           Federal funding;

7           “(v) providing advice and consultation  
8           to the Secretary on the selection of judges in  
9           accordance with paragraph (2)(D), using  
10          criteria developed in consultation with and  
11          subject to the final approval of the Sec-  
12          retary; and

13          “(vi) protecting against the admin-  
14          istering entity’s unauthorized use or disclo-  
15          sure of a registered participant’s trade se-  
16          crets and confidential business information.  
17          Any information properly identified as  
18          trade secrets or confidential business infor-  
19          mation that is submitted by a participant  
20          as part of a competitive program under this  
21          subsection may be withheld from public dis-  
22          closure.

23          “(D) *FUNDING SOURCES.*—Prizes under  
24          this subsection shall consist of Federal appro-  
25          priated funds and any funds provided by the ad-

1        *ministering entity (including funds raised pur-*  
 2        *suant to subparagraph (C)(ii)) for such cash*  
 3        *prize programs. The Secretary may accept funds*  
 4        *from other Federal agencies for such cash prizes*  
 5        *and, notwithstanding section 3302(b) of title 31,*  
 6        *United States Code, may use such funds for the*  
 7        *cash prize program under this subsection. Other*  
 8        *than publication of the names of prize sponsors,*  
 9        *the Secretary may not give any special consider-*  
 10       *ation to any private sector entity or individual*  
 11       *in return for a donation to the Secretary or ad-*  
 12       *ministering entity.*

13            “(E) ANNOUNCEMENT OF PRIZES.—*The*  
 14        *Secretary may not issue a notice required by*  
 15        *subparagraph (B)(ii) until all the funds needed*  
 16        *to pay out the announced amount of the prize*  
 17        *have been appropriated or committed in writing*  
 18        *by the administering entity. The Secretary may*  
 19        *increase the amount of a prize after an initial*  
 20        *announcement is made under subparagraph*  
 21        *(B)(ii) if—*

22            “(i) *notice of the increase is provided*  
 23            *in the same manner as the initial notice of*  
 24            *the prize; and*

1                   “(ii) the funds needed to pay out the  
 2                   announced amount of the increase have been  
 3                   appropriated or committed in writing by  
 4                   the administering entity.

5                   “(F) SUNSET.—The authority to announce  
 6                   prize competitions under this subsection shall  
 7                   terminate on September 30, 2018.

8                   “(2) PRIZE CATEGORIES.—

9                   “(A) CATEGORIES.—The Secretary shall es-  
 10                  tablish prizes under this subsection for—

11                   “(i) advancements in technologies,  
 12                   components, or systems related to—

13                   “(I) hydrogen production;

14                   “(II) hydrogen storage;

15                   “(III) hydrogen distribution; and

16                   “(IV) hydrogen utilization;

17                   “(ii) prototypes of hydrogen-powered  
 18                   vehicles or other hydrogen-based products  
 19                   that best meet or exceed objective perform-  
 20                   ance criteria, such as completion of a race  
 21                   over a certain distance or terrain or genera-  
 22                   tion of energy at certain levels of efficiency;  
 23                   and

24                   “(iii) transformational changes in  
 25                   technologies for the distribution or produc-

1            *tion of hydrogen that meet or exceed far-*  
2            *reaching objective criteria, which shall in-*  
3            *clude minimal carbon emissions and which*  
4            *may include cost criteria designed to facili-*  
5            *tate the eventual market success of a win-*  
6            *ning technology.*

7            *“(B) AWARDS.—*

8                    *“(i) ADVANCEMENTS.—To the extent*  
9                    *permitted under paragraph (1)(E), the*  
10                   *prizes authorized under subparagraph*  
11                   *(A)(i) shall be awarded biennially to the*  
12                   *most significant advance made in each of*  
13                   *the four subcategories described in sub-*  
14                   *clauses (I) through (IV) of subparagraph*  
15                   *(A)(i) since the submission deadline of the*  
16                   *previous prize competition in the same cat-*  
17                   *egory under subparagraph (A)(i) or the date*  
18                   *of enactment of this subsection, whichever is*  
19                   *later, unless no such advance is significant*  
20                   *enough to merit an award. No one such*  
21                   *prize may exceed \$1,000,000. If less than*  
22                   *\$4,000,000 is available for a prize competi-*  
23                   *tion under subparagraph (A)(i), the Sec-*  
24                   *retary may omit one or more subcategories,*

1           *reduce the amount of the prizes, or not hold*  
2           *a prize competition.*

3           “(ii) *PROTOTYPES.*—*To the extent per-*  
4           *mitted under paragraph (1)(E), prizes au-*  
5           *thorized under subparagraph (A)(ii) shall*  
6           *be awarded biennially in alternate years*  
7           *from the prizes authorized under subpara-*  
8           *graph (A)(i). The Secretary is authorized to*  
9           *award up to one prize in this category in*  
10           *each 2-year period. No such prize may ex-*  
11           *ceed \$4,000,000. If no registered partici-*  
12           *pants meet the objective performance cri-*  
13           *teria established pursuant to subparagraph*  
14           *(C) for a competition under this clause, the*  
15           *Secretary shall not award a prize.*

16           “(iii) *TRANSFORMATIONAL TECH-*  
17           *NOLOGIES.*—*To the extent permitted under*  
18           *paragraph (1)(E), the Secretary shall an-*  
19           *nounce one prize competition authorized*  
20           *under subparagraph (A)(iii) as soon after*  
21           *the date of enactment of this subsection as*  
22           *is practicable. A prize offered under this*  
23           *clause shall be not less than \$10,000,000,*  
24           *paid to the winner in a lump sum, and an*  
25           *additional amount paid to the winner as a*

1 match for each dollar of private funding  
2 raised by the winner for the hydrogen tech-  
3 nology beginning on the date the winner  
4 was named. The match shall be provided for  
5 3 years after the date the prize winner is  
6 named or until the full amount of the prize  
7 has been paid out, whichever occurs first. A  
8 prize winner may elect to have the match  
9 amount paid to another entity that is con-  
10 tinuing the development of the winning  
11 technology. The Secretary shall announce  
12 the rules for receiving the match in the no-  
13 tice required by paragraph (1)(B)(ii). The  
14 Secretary shall award a prize under this  
15 clause only when a registered participant  
16 has met the objective criteria established for  
17 the prize pursuant to subparagraph (C) and  
18 announced pursuant to paragraph  
19 (1)(B)(ii). Not more than \$10,000,000 in  
20 Federal funds may be used for the prize  
21 award under this clause. The administering  
22 entity shall seek to raise \$40,000,000 to-  
23 ward the matching award under this clause.  
24 “(C) CRITERIA.—In establishing the cri-  
25 teria required by this subsection, the Secretary—



1           “(i) shall consult with the Depart-  
2           ment’s Hydrogen Technical and Fuel Cell  
3           Advisory Committee;

4           “(ii) shall consult with other Federal  
5           agencies, including the National Science  
6           Foundation; and

7           “(iii) may consult with other experts  
8           such as private organizations, including  
9           professional societies, industry associations,  
10          and the National Academy of Sciences and  
11          the National Academy of Engineering.

12          “(D) JUDGES.—For each prize competition  
13          under this subsection, the Secretary in consulta-  
14          tion with the administering entity shall assemble  
15          a panel of qualified judges to select the winner  
16          or winners on the basis of the criteria established  
17          under subparagraph (C). Judges for each prize  
18          competition shall include individuals from out-  
19          side the Department, including from the private  
20          sector. A judge, spouse, minor children, and  
21          members of the judge’s household may not—

22               “(i) have personal or financial inter-  
23               ests in, or be an employee, officer, director,  
24               or agent of, any entity that is a registered

1            *participant in the prize competition for*  
 2            *which he or she will serve as a judge; or*

3            *“(ii) have a familial or financial rela-*  
 4            *tionship with an individual who is a reg-*  
 5            *istered participant in the prize competition*  
 6            *for which he or she will serve as a judge.*

7            *“(3) ELIGIBILITY.—To be eligible to win a prize*  
 8            *under this subsection, an individual or entity—*

9            *“(A) shall have complied with all the re-*  
 10           *quirements in accordance with the Federal Reg-*  
 11           *ister notice required under paragraph (1)(B)(ii);*

12           *“(B) in the case of a private entity, shall be*  
 13           *incorporated in and maintain a primary place*  
 14           *of business in the United States, and in the case*  
 15           *of an individual, whether participating singly or*  
 16           *in a group, shall be a citizen of, or an alien law-*  
 17           *fully admitted for permanent residence in, the*  
 18           *United States; and*

19           *“(C) shall not be a Federal entity, a Federal*  
 20           *employee acting within the scope of his employ-*  
 21           *ment, or an employee of a national laboratory*  
 22           *acting within the scope of his employment.*

23           *“(4) INTELLECTUAL PROPERTY.—The Federal*  
 24           *Government shall not, by virtue of offering or award-*  
 25           *ing a prize under this subsection, be entitled to any*

1     *intellectual property rights derived as a consequence*  
 2     *of, or direct relation to, the participation by a reg-*  
 3     *istered participant in a competition authorized by*  
 4     *this subsection. This paragraph shall not be construed*  
 5     *to prevent the Federal Government from negotiating*  
 6     *a license for the use of intellectual property developed*  
 7     *for a prize competition under this subsection.*

8             “(5) *LIABILITY.*—

9             “(A) *WAIVER OF LIABILITY.*—*The Secretary*  
 10     *may require registered participants to waive*  
 11     *claims against the Federal Government and the*  
 12     *administering entity (except claims for willful*  
 13     *misconduct) for any injury, death, damage, or*  
 14     *loss of property, revenue, or profits arising from*  
 15     *the registered participants’ participation in a*  
 16     *competition under this subsection. The Secretary*  
 17     *shall give notice of any waiver required under*  
 18     *this subparagraph in the notice required by*  
 19     *paragraph (1)(B)(ii). The Secretary may not re-*  
 20     *quire a registered participant to waive claims*  
 21     *against the administering entity arising out of*  
 22     *the unauthorized use or disclosure by the admin-*  
 23     *istering entity of the registered participant’s*  
 24     *trade secrets or confidential business informa-*  
 25     *tion.*

1 “(B) *LIABILITY INSURANCE.*—

2 “(i) *REQUIREMENTS.*—*Registered par-*  
3 *ticipants in a prize competition under this*  
4 *subsection shall be required to obtain liabil-*  
5 *ity insurance or demonstrate financial re-*  
6 *sponsibility, in amounts determined by the*  
7 *Secretary, for claims by—*

8 “(I) *a third party for death, bod-*  
9 *ily injury, or property damage or loss*  
10 *resulting from an activity carried out*  
11 *in connection with participation in a*  
12 *competition under this subsection; and*

13 “(II) *the Federal Government for*  
14 *damage or loss to Government property*  
15 *resulting from such an activity.*

16 “(ii) *FEDERAL GOVERNMENT IN-*  
17 *SURED.*—*The Federal Government shall be*  
18 *named as an additional insured under a*  
19 *registered participant’s insurance policy re-*  
20 *quired under clause (i)(I), and registered*  
21 *participants shall be required to agree to*  
22 *indemnify the Federal Government against*  
23 *third party claims for damages arising*  
24 *from or related to competition activities*  
25 *under this subsection.*

1           “(6) *REPORT TO CONGRESS.*—Not later than 60  
 2           *days after the awarding of the first prize under this*  
 3           *subsection, and annually thereafter, the Secretary*  
 4           *shall transmit to the Congress a report that—*

5                   “(A) *identifies each award recipient;*

6                   “(B) *describes the technologies developed by*  
 7                   *each award recipient; and*

8                   “(C) *specifies actions being taken toward*  
 9                   *commercial application of all technologies with*  
 10                  *respect to which a prize has been awarded under*  
 11                  *this subsection.*

12           “(7) *AUTHORIZATION OF APPROPRIATIONS.*—

13                   “(A) *IN GENERAL.*—

14                   “(i) *AWARDS.*—There are authorized to  
 15                   *be appropriated to the Secretary for the pe-*  
 16                   *riod encompassing fiscal years 2008 through*  
 17                   *2017 for carrying out this subsection—*

18                           “(I) *\$20,000,000 for awards de-*  
 19                           *scribed in paragraph (2)(A)(i);*

20                           “(II) *\$20,000,000 for awards de-*  
 21                           *scribed in paragraph (2)(A)(ii); and*

22                           “(III) *\$10,000,000 for the award*  
 23                           *described in paragraph (2)(A)(iii).*

24                   “(ii) *ADMINISTRATION.*—In addition  
 25                   *to the amounts authorized in clause (i),*

1           *there are authorized to be appropriated to*  
 2           *the Secretary for each of fiscal years 2008*  
 3           *and 2009 \$2,000,000 for the administrative*  
 4           *costs of carrying out this subsection.*

5           “(B) *CARRYOVER OF FUNDS.—Funds ap-*  
 6           *propriated for prize awards under this sub-*  
 7           *section shall remain available until expended,*  
 8           *and may be transferred, reprogrammed, or ex-*  
 9           *pended for other purposes only after the expira-*  
 10          *tion of 10 fiscal years after the fiscal year for*  
 11          *which the funds were originally appropriated.*  
 12          *No provision in this subsection permits obliga-*  
 13          *tion or payment of funds in violation of section*  
 14          *1341 of title 31 of the United States Code (com-*  
 15          *monly referred to as the Anti-Deficiency Act).*

16          “(8) *NONSUBSTITUTION.—The programs created*  
 17          *under this subsection shall not be considered a sub-*  
 18          *stitute for Federal research and development pro-*  
 19          *grams.”.*

20   **SEC. 655. BRIGHT TOMORROW LIGHTING PRIZES.**

21          “(a) *ESTABLISHMENT.—Not later than 1 year after the*  
 22          *date of enactment of this Act, as part of the program carried*  
 23          *out under section 1008 of the Energy Policy Act of 2005*  
 24          *(42 U.S.C. 16396), the Secretary shall establish and award*

1 *Bright Tomorrow Lighting Prizes for solid state lighting*  
2 *in accordance with this section.*

3 *(b) PRIZE SPECIFICATIONS.—*

4 *(1) 60-WATT INCANDESCENT REPLACEMENT LAMP*  
5 *PRIZE.—The Secretary shall award a 60-Watt Incan-*  
6 *descent Replacement Lamp Prize to an entrant that*  
7 *produces a solid-state light package simultaneously*  
8 *capable of—*

9 *(A) producing a luminous flux greater than*  
10 *900 lumens;*

11 *(B) consuming less than or equal to 10*  
12 *watts;*

13 *(C) having an efficiency greater than 90*  
14 *lumens per watt;*

15 *(D) having a color rendering index greater*  
16 *than 90;*

17 *(E) having a correlated color temperature of*  
18 *not less than 2,750, and not more than 3,000, de-*  
19 *grees Kelvin;*

20 *(F) having 70 percent of the lumen value*  
21 *under subparagraph (A) exceeding 25,000 hours*  
22 *under typical conditions expected in residential*  
23 *use;*

24 *(G) having a light distribution pattern*  
25 *similar to a soft 60-watt incandescent A19 bulb;*

1           (H) having a size and shape that fits with-  
 2           in the maximum dimensions of an A19 bulb in  
 3           accordance with American National Standards  
 4           Institute standard C78.20–2003, figure C78.20–  
 5           211;

6           (I) using a single contact medium screw  
 7           socket; and

8           (J) mass production for a competitive sales  
 9           commercial market satisfied by producing com-  
 10          mercially accepted quality control lots of such  
 11          units equal to or exceeding the criteria described  
 12          in subparagraphs (A) through (I).

13          (2) *PAR TYPE 38 HALOGEN REPLACEMENT LAMP*  
 14          *PRIZE.*—The Secretary shall award a Parabolic Alu-  
 15          minized Reflector Type 38 Halogen Replacement  
 16          Lamp Prize (referred to in this section as the “PAR  
 17          Type 38 Halogen Replacement Lamp Prize”) to an  
 18          entrant that produces a solid-state-light package si-  
 19          multaneously capable of—

20               (A) producing a luminous flux greater than  
 21               or equal to 1,350 lumens;

22               (B) consuming less than or equal to 11  
 23               watts;

24               (C) having an efficiency greater than 123  
 25               lumens per watt;



1           (D) having a color rendering index greater  
2           than or equal to 90;

3           (E) having a correlated color coordinate  
4           temperature of not less than 2,750, and not more  
5           than 3,000, degrees Kelvin;

6           (F) having 70 percent of the lumen value  
7           under subparagraph (A) exceeding 25,000 hours  
8           under typical conditions expected in residential  
9           use;

10          (G) having a light distribution pattern  
11          similar to a PAR 38 halogen lamp;

12          (H) having a size and shape that fits with-  
13          in the maximum dimensions of a PAR 38 halo-  
14          gen lamp in accordance with American National  
15          Standards Institute standard C78-21-2003, fig-  
16          ure C78.21-238;

17          (I) using a single contact medium screw  
18          socket; and

19          (J) mass production for a competitive sales  
20          commercial market satisfied by producing com-  
21          mercially accepted quality control lots of such  
22          units equal to or exceeding the criteria described  
23          in subparagraphs (A) through (I).

24          (3) TWENTY-FIRST CENTURY LAMP PRIZE.—The  
25          Secretary shall award a Twenty-First Century Lamp

1       *Prize to an entrant that produces a solid-state-light-*  
 2       *light capable of—*

3               *(A) producing a light output greater than*  
 4               *1,200 lumens;*

5               *(B) having an efficiency greater than 150*  
 6               *lumens per watt;*

7               *(C) having a color rendering index greater*  
 8               *than 90;*

9               *(D) having a color coordinate temperature*  
 10              *between 2,800 and 3,000 degrees Kelvin; and*

11              *(E) having a lifetime exceeding 25,000*  
 12              *hours.*

13       *(c) PRIVATE FUNDS.—*

14              *(1) IN GENERAL.—Subject to paragraph (2), and*  
 15              *notwithstanding section 3302 of title 31, United*  
 16              *States Code, the Secretary may accept, retain, and*  
 17              *use funds contributed by any person, government en-*  
 18              *tity, or organization for purposes of carrying out this*  
 19              *subsection—*

20                      *(A) without further appropriation; and*

21                      *(B) without fiscal year limitation.*

22              *(2) PRIZE COMPETITION.—A private source of*  
 23              *funding may not participate in the competition for*  
 24              *prizes awarded under this section.*

1       (d) *TECHNICAL REVIEW.*—*The Secretary shall estab-*  
 2 *lish a technical review committee composed of non-Federal*  
 3 *officers to review entrant data submitted under this section*  
 4 *to determine whether the data meets the prize specifications*  
 5 *described in subsection (b).*

6       (e) *THIRD PARTY ADMINISTRATION.*—*The Secretary*  
 7 *may competitively select a third party to administer*  
 8 *awards under this section.*

9       (f) *ELIGIBILITY FOR PRIZES.*—*To be eligible to be*  
 10 *awarded a prize under this section—*

11           (1) *in the case of a private entity, the entity*  
 12 *shall be incorporated in and maintain a primary*  
 13 *place of business in the United States; and*

14           (2) *in the case of an individual (whether partici-*  
 15 *pating as a single individual or in a group), the in-*  
 16 *dividual shall be a citizen or lawful permanent resi-*  
 17 *dent of the United States.*

18       (g) *AWARD AMOUNTS.*—*Subject to the availability of*  
 19 *funds to carry out this section, the amount of—*

20           (1) *the 60-Watt Incandescent Replacement Lamp*  
 21 *Prize described in subsection (b)(1) shall be*  
 22 *\$10,000,000;*

23           (2) *the PAR Type 38 Halogen Replacement*  
 24 *Lamp Prize described in subsection (b)(2) shall be*  
 25 *\$5,000,000; and*

1           (3) *the Twenty-First Century Lamp Prize de-*  
 2           *scribed in subsection (b)(3) shall be \$5,000,000.*

3           (h) *FEDERAL PROCUREMENT OF SOLID-STATE-*  
 4           *LIGHTS.—*

5           (1) *60-WATT INCANDESCENT REPLACEMENT.—*  
 6           *Subject to paragraph (3), as soon as practicable after*  
 7           *the successful award of the 60-Watt Incandescent Re-*  
 8           *placement Lamp Prize under subsection (b)(1), the*  
 9           *Secretary (in consultation with the Administrator of*  
 10           *General Services) shall develop governmentwide Fed-*  
 11           *eral purchase guidelines with a goal of replacing the*  
 12           *use of 60-watt incandescent lamps in Federal Govern-*  
 13           *ment buildings with a solid-state-light package de-*  
 14           *scribed in subsection (b)(1) by not later than the date*  
 15           *that is 5 years after the date the award is made.*

16           (2) *PAR 38 HALOGEN REPLACEMENT LAMP RE-*  
 17           *PLACEMENT.—Subject to paragraph (3), as soon as*  
 18           *practicable after the successful award of the PAR*  
 19           *Type 38 Halogen Replacement Lamp Prize under*  
 20           *subsection (b)(2), the Secretary (in consultation with*  
 21           *the Administrator of General Services) shall develop*  
 22           *governmentwide Federal purchase guidelines with the*  
 23           *goal of replacing the use of PAR 38 halogen lamps in*  
 24           *Federal Government buildings with a solid-state-light*  
 25           *package described in subsection (b)(2) by not later*

1        *than the date that is 5 years after the date the award*  
 2        *is made.*

3            (3) *WAIVERS.—*

4                    (A) *IN GENERAL.—The Secretary or the Ad-*  
 5                    *ministrator of General Services may waive the*  
 6                    *application of paragraph (1) or (2) if the Sec-*  
 7                    *retary or Administrator determines that the re-*  
 8                    *turn on investment from the purchase of a solid-*  
 9                    *state-light package described in paragraph (1) or*  
 10                   *(2) of subsection (b), respectively, is cost prohibi-*  
 11                   *tive.*

12                   (B) *REPORT OF WAIVER.—If the Secretary*  
 13                   *or Administrator waives the application of para-*  
 14                   *graph (1) or (2), the Secretary or Administrator,*  
 15                   *respectively, shall submit to Congress an annual*  
 16                   *report that describes the waiver and provides a*  
 17                   *detailed justification for the waiver.*

18            (i) *REPORT.—Not later than 2 years after the date of*  
 19            *enactment of this Act, and annually thereafter, the Admin-*  
 20            *istrator of General Services shall submit to the Energy In-*  
 21            *formation Agency a report describing the quantity, type,*  
 22            *and cost of each lighting product purchased by the Federal*  
 23            *Government.*

24            (j) *BRIGHT TOMORROW LIGHTING AWARD FUND.—*

1           (1) *ESTABLISHMENT.*—*There is established in*  
 2           *the United States Treasury a Bright Tomorrow*  
 3           *Lighting permanent fund without fiscal year limita-*  
 4           *tion to award prizes under paragraphs (1), (2), and*  
 5           *(3) of subsection (b).*

6           (2) *SOURCES OF FUNDING.*—*The fund established*  
 7           *under paragraph (1) shall accept—*

8                     *(A) fiscal year appropriations; and*

9                     *(B) private contributions authorized under*  
 10           *subsection (c).*

11          (k) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 12          *authorized to be appropriated such sums as are necessary*  
 13          *to carry out this section.*

14   **SEC. 656. RENEWABLE ENERGY INNOVATION MANUFAC-**  
 15                     **TURING PARTNERSHIP.**

16          (a) *ESTABLISHMENT.*—*The Secretary shall carry out*  
 17          *a program, to be known as the Renewable Energy Innova-*  
 18          *tion Manufacturing Partnership Program (referred to in*  
 19          *this section as the “Program”), to make assistance awards*  
 20          *to eligible entities for use in carrying out research, develop-*  
 21          *ment, and demonstration relating to the manufacturing of*  
 22          *renewable energy technologies.*

23          (b) *SOLICITATION.*—*To carry out the Program, the*  
 24          *Secretary shall annually conduct a competitive solicitation*

1 *for assistance awards for an eligible project described in*  
2 *subsection (e).*

3 (c) *PROGRAM PURPOSES.—The purposes of the Pro-*  
4 *gram are—*

5 (1) *to develop, or aid in the development of, ad-*  
6 *vanced manufacturing processes, materials, and in-*  
7 *frastructure;*

8 (2) *to increase the domestic production of renew-*  
9 *able energy technology and components; and*

10 (3) *to better coordinate Federal, State, and pri-*  
11 *ivate resources to meet regional and national renew-*  
12 *able energy goals through advanced manufacturing*  
13 *partnerships.*

14 (d) *ELIGIBLE ENTITIES.—An entity shall be eligible*  
15 *to receive an assistance award under the Program to carry*  
16 *out an eligible project described in subsection (e) if the enti-*  
17 *ty is composed of—*

18 (1) *1 or more public or private nonprofit institu-*  
19 *tions or national laboratories engaged in research, de-*  
20 *velopment, demonstration, or technology transfer, that*  
21 *would participate substantially in the project; and*

22 (2) *1 or more private entities engaged in the*  
23 *manufacturing or development of renewable energy*  
24 *system components (including solar energy, wind en-*

1        *ergy, biomass, geothermal energy, energy storage, or*  
 2        *fuel cells).*

3        *(e) ELIGIBLE PROJECTS.—An eligible entity may use*  
 4        *an assistance award provided under this section to carry*  
 5        *out a project relating to—*

6                *(1) the conduct of studies of market opportunities*  
 7        *for component manufacturing of renewable energy*  
 8        *systems;*

9                *(2) the conduct of multiyear applied research,*  
 10        *development, demonstration, and deployment projects*  
 11        *for advanced manufacturing processes, materials, and*  
 12        *infrastructure for renewable energy systems; and*

13                *(3) other similar ventures, as approved by the*  
 14        *Secretary, that promote advanced manufacturing of*  
 15        *renewable technologies.*

16        *(f) CRITERIA AND GUIDELINES.—The Secretary shall*  
 17        *establish criteria and guidelines for the submission, evalua-*  
 18        *tion, and funding of proposed projects under the Program.*

19        *(g) COST SHARING.—Section 988 of the Energy Policy*  
 20        *Act of 2005 (42 U.S.C. 16352) shall apply to a project car-*  
 21        *ried out under this section.*

22        *(h) DISCLOSURE.—The Secretary may, for a period of*  
 23        *up to five years after an award is granted under this sec-*  
 24        *tion, exempt from mandatory disclosure under section 552*  
 25        *of title 5, United States Code (popularly known as the Free-*



1 *dom of Information Act) information that the Secretary de-*  
 2 *termines would be a privileged or confidential trade secret*  
 3 *or commercial or financial information under subsection*  
 4 *(b)(4) of such section if the information had been obtained*  
 5 *from a non-Government party.*

6 (i) *SENSE OF THE CONGRESS.—It is the sense of the*  
 7 *Congress that the Secretary should ensure that small busi-*  
 8 *nesses engaged in renewable manufacturing be given pri-*  
 9 *ority consideration for the assistance awards provided*  
 10 *under this section.*

11 (j) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
 12 *authorized to be appropriated out of funds already author-*  
 13 *ized to carry out this section \$25,000,000 for each of fiscal*  
 14 *years 2008 through 2013, to remain available until ex-*  
 15 *pended.*

16 ***TITLE VII—CARBON CAPTURE***  
 17 ***AND SEQUESTRATION***  
 18 ***Subtitle A—Carbon Capture and***  
 19 ***Sequestration Research, Devel-***  
 20 ***opment, and Demonstration***

21 ***SEC. 701. SHORT TITLE.***

22 *This subtitle may be cited as the “Department of En-*  
 23 *ergy Carbon Capture and Sequestration Research, Develop-*  
 24 *ment, and Demonstration Act of 2007”.*

1 **SEC. 702. CARBON CAPTURE AND SEQUESTRATION RE-**  
 2 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**  
 3 **TION PROGRAM.**

4 (a) *AMENDMENT.*—Section 963 of the Energy Policy  
 5 Act of 2005 (42 U.S.C. 16293) is amended—

6 (1) in the section heading, by striking “**RE-**  
 7 **SEARCH AND DEVELOPMENT**” and inserting  
 8 “**AND SEQUESTRATION RESEARCH, DEVELOP-**  
 9 **MENT, AND DEMONSTRATION**”;

10 (2) in subsection (a)—

11 (A) by striking “research and development”  
 12 and inserting “and sequestration research, devel-  
 13 opment, and demonstration”; and

14 (B) by striking “capture technologies on  
 15 combustion-based systems” and inserting “cap-  
 16 ture and sequestration technologies related to in-  
 17 dustrial sources of carbon dioxide”;

18 (3) in subsection (b)—

19 (A) in paragraph (3), by striking “and” at  
 20 the end;

21 (B) in paragraph (4), by striking the period  
 22 at the end and inserting “; and”; and

23 (C) by adding at the end the following:

24 “(5) to expedite and carry out large-scale testing  
 25 of carbon sequestration systems in a range of geologic  
 26 formations that will provide information on the cost

1       *and feasibility of deployment of sequestration tech-*  
 2       *nologies.”; and*

3               *(4) by striking subsection (c) and inserting the*  
 4       *following:*

5       “(c) *PROGRAMMATIC ACTIVITIES.*—

6               “(1) *FUNDAMENTAL SCIENCE AND ENGINEERING*  
 7       *RESEARCH AND DEVELOPMENT AND DEMONSTRATION*  
 8       *SUPPORTING CARBON CAPTURE AND SEQUESTRATION*  
 9       *TECHNOLOGIES AND CARBON USE ACTIVITIES.*—

10              “(A) *IN GENERAL.*—*The Secretary shall*  
 11       *carry out fundamental science and engineering*  
 12       *research (including laboratory-scale experiments,*  
 13       *numeric modeling, and simulations) to develop*  
 14       *and document the performance of new ap-*  
 15       *proaches to capture and sequester, or use carbon*  
 16       *dioxide to lead to an overall reduction of carbon*  
 17       *dioxide emissions.*

18              “(B) *PROGRAM INTEGRATION.*—*The Sec-*  
 19       *retary shall ensure that fundamental research*  
 20       *carried out under this paragraph is appro-*  
 21       *priately applied to energy technology develop-*  
 22       *ment activities, the field testing of carbon seques-*  
 23       *tration, and carbon use activities, including—*

1                   “(i) development of new or advanced  
2                   technologies for the capture and sequestra-  
3                   tion of carbon dioxide;

4                   “(ii) development of new or advanced  
5                   technologies that reduce the cost and in-  
6                   crease the efficacy of advanced compression  
7                   of carbon dioxide required for the sequestra-  
8                   tion of carbon dioxide;

9                   “(iii) modeling and simulation of geo-  
10                  logic sequestration field demonstrations;

11                  “(iv) quantitative assessment of risks  
12                  relating to specific field sites for testing of  
13                  sequestration technologies;

14                  “(v) research and development of new  
15                  and advanced technologies for carbon use,  
16                  including recycling and reuse of carbon di-  
17                  oxide; and

18                  “(vi) research and development of new  
19                  and advanced technologies for the separa-  
20                  tion of oxygen from air.

21                  “(2) *FIELD VALIDATION TESTING ACTIVITIES.*—

22                  “(A) *IN GENERAL.*—The Secretary shall  
23                  promote, to the maximum extent practicable, re-  
24                  gional carbon sequestration partnerships to con-  
25                  duct geologic sequestration tests involving carbon

1       *dioxide injection and monitoring, mitigation,*  
2       *and verification operations in a variety of can-*  
3       *didate geologic settings, including—*

4               “(i) operating oil and gas fields;

5               “(ii) depleted oil and gas fields;

6               “(iii) unmineable coal seams;

7               “(iv) deep saline formations;

8               “(v) deep geologic systems that may be  
9       *used as engineered reservoirs to extract eco-*  
10       *nomical quantities of heat from geothermal*  
11       *resources of low permeability or porosity;*  
12       *and*

13               “(vi) deep geologic systems containing  
14       *basalt formations.*

15       “(B) *OBJECTIVES.—The objectives of tests*  
16       *conducted under this paragraph shall be—*

17               “(i) to develop and validate geo-  
18       *physical tools, analysis, and modeling to*  
19       *monitor, predict, and verify carbon dioxide*  
20       *containment;*

21               “(ii) to validate modeling of geologic  
22       *formations;*

23               “(iii) to refine sequestration capacity  
24       *estimated for particular geologic formations;*

1           “(iv) to determine the fate of carbon  
2           dioxide concurrent with and following injec-  
3           tion into geologic formations;

4           “(v) to develop and implement best  
5           practices for operations relating to, and  
6           monitoring of, carbon dioxide injection and  
7           sequestration in geologic formations;

8           “(vi) to assess and ensure the safety of  
9           operations related to geologic sequestration  
10          of carbon dioxide;

11          “(vii) to allow the Secretary to pro-  
12          mulgate policies, procedures, requirements,  
13          and guidance to ensure that the objectives of  
14          this subparagraph are met in large-scale  
15          testing and deployment activities for carbon  
16          capture and sequestration that are funded  
17          by the Department of Energy; and

18          “(viii) to provide information to  
19          States, the Environmental Protection Agen-  
20          cy, and other appropriate entities to sup-  
21          port development of a regulatory framework  
22          for commercial-scale sequestration oper-  
23          ations that ensure the protection of human  
24          health and the environment.

1           “(3) *LARGE-SCALE CARBON DIOXIDE SEQUES-*  
2           *TRATION TESTING.*—

3                   “(A) *IN GENERAL.*—*The Secretary shall*  
4                   *conduct not less than 7 initial large-scale seques-*  
5                   *tration tests, not including the FutureGen*  
6                   *project, for geologic containment of carbon diox-*  
7                   *ide to collect and validate information on the*  
8                   *cost and feasibility of commercial deployment of*  
9                   *technologies for geologic containment of carbon*  
10                  *dioxide. These 7 tests may include any Regional*  
11                  *Partnership projects awarded as of the date of*  
12                  *enactment of the Department of Energy Carbon*  
13                  *Capture and Sequestration Research, Develop-*  
14                  *ment, and Demonstration Act of 2007.*

15                  “(B) *DIVERSITY OF FORMATIONS TO BE*  
16                  *STUDIED.*—*In selecting formations for study*  
17                  *under this paragraph, the Secretary shall con-*  
18                  *sider a variety of geologic formations across the*  
19                  *United States, and require characterization and*  
20                  *modeling of candidate formations, as determined*  
21                  *by the Secretary.*

22                  “(C) *SOURCE OF CARBON DIOXIDE FOR*  
23                  *LARGE-SCALE SEQUESTRATION TESTS.*—*In the*  
24                  *process of any acquisition of carbon dioxide for*  
25                  *sequestration tests under subparagraph (A), the*

Secretary shall give preference to sources of carbon dioxide from industrial sources. To the extent feasible, the Secretary shall prefer tests that would facilitate the creation of an integrated system of capture, transportation and sequestration of carbon dioxide. The preference provided for under this subparagraph shall not delay the implementation of the large-scale sequestration tests under this paragraph.

“(D) *DEFINITION.*—For purposes of this paragraph, the term ‘large-scale’ means the injection of more than 1,000,000 tons of carbon dioxide from industrial sources annually or a scale that demonstrates the ability to inject and sequester several million metric tons of industrial source carbon dioxide for a large number of years.

“(4) *PREFERENCE IN PROJECT SELECTION FROM MERITORIOUS PROPOSALS.*—In making competitive awards under this subsection, subject to the requirements of section 989, the Secretary shall—

“(A) give preference to proposals from partnerships among industrial, academic, and government entities; and



1           “(B) *require recipients to provide assur-*  
2           *ances that all laborers and mechanics employed*  
3           *by contractors and subcontractors in the con-*  
4           *struction, repair, or alteration of new or existing*  
5           *facilities performed in order to carry out a dem-*  
6           *onstrations or commercial application activity*  
7           *authorized under this subsection shall be paid*  
8           *wages at rates not less than those prevailing on*  
9           *similar construction in the locality, as deter-*  
10          *mined by the Secretary of Labor in accordance*  
11          *with subchapter IV of chapter 31 of title 40,*  
12          *United States Code, and the Secretary of Labor*  
13          *shall, with respect to the labor standards in this*  
14          *paragraph, have the authority and functions set*  
15          *forth in Reorganization Plan Numbered 14 of*  
16          *1950 (15 Fed. Reg. 3176; 5 U.S.C. Appendix)*  
17          *and section 3145 of title 40, United States Code.*

18          “(5) *COST SHARING.—Activities under this sub-*  
19          *section shall be considered research and development*  
20          *activities that are subject to the cost sharing require-*  
21          *ments of section 988(b).*

22          “(6) *PROGRAM REVIEW AND REPORT.—During*  
23          *fiscal year 2011, the Secretary shall—*

24                  “(A) *conduct a review of programmatic ac-*  
25                  *tivities carried out under this subsection; and*

1                   “(B) *make recommendations with respect to*  
2                   *continuation of the activities.*

3           “(d) *AUTHORIZATION OF APPROPRIATIONS.—There*  
4           *are authorized to be appropriated to carry out this*  
5           *section—*

6                   “(1) \$240,000,000 for fiscal year 2008;

7                   “(2) \$240,000,000 for fiscal year 2009;

8                   “(3) \$240,000,000 for fiscal year 2010;

9                   “(4) \$240,000,000 for fiscal year 2011; and

10                  “(5) \$240,000,000 for fiscal year 2012.”.

11           “(b) *TABLE OF CONTENTS AMENDMENT.—The item re-*  
12           *lating to section 963 in the table of contents for the Energy*  
13           *Policy Act of 2005 is amended to read as follows:*

“Sec. 963. Carbon capture and sequestration research, development, and demonstration program.”.

14   **SEC. 703. CARBON CAPTURE.**

15           “(a) *PROGRAM ESTABLISHMENT.—*

16                   “(1) *IN GENERAL.—The Secretary shall carry out*  
17                   *a program to demonstrate technologies for the large-*  
18                   *scale capture of carbon dioxide from industrial*  
19                   *sources. In making awards under this program, the*  
20                   *Secretary shall select, as appropriate, a diversity of*  
21                   *capture technologies to address the need to capture*  
22                   *carbon dioxide from a range of industrial sources.*

23                   “(2) *SCOPE OF AWARD.—Awards under this sec-*  
24                   *tion shall be only for the portion of the project that—*

1           (A) carries out the large-scale capture (in-  
2           cluding purification and compression) of carbon  
3           dioxide from industrial sources;

4           (B) provides for the transportation and in-  
5           jection of carbon dioxide; and

6           (C) incorporates a comprehensive measure-  
7           ment, monitoring, and validation program.

8           (3) *PREFERENCES FOR AWARD.*—To ensure re-  
9           duced carbon dioxide emissions, the Secretary shall  
10          take necessary actions to provide for the integration  
11          of the program under this paragraph with the large-  
12          scale carbon dioxide sequestration tests described in  
13          section 963(c)(3) of the Energy Policy Act of 2005 (42  
14          U.S.C. 16293(c)(3)), as added by section 702 of this  
15          subtitle. These actions should not delay implementa-  
16          tion of these tests. The Secretary shall give priority  
17          consideration to projects with the following character-  
18          istics:

19           (A) *CAPACITY.*—Projects that will capture a  
20           high percentage of the carbon dioxide in the  
21           treated stream and large volumes of carbon diox-  
22           ide as determined by the Secretary.

23           (B) *SEQUESTRATION.*—Projects that cap-  
24           ture carbon dioxide from industrial sources that

1           *are near suitable geological reservoirs and could*  
 2           *continue sequestration including—*

3                     *(i) a field testing validation activity*  
 4                     *under section 963 of the Energy Policy Act*  
 5                     *of 2005 (42 U.S.C. 16293), as amended by*  
 6                     *this Act; or*

7                     *(ii) other geologic sequestration projects*  
 8                     *approved by the Secretary.*

9           (4) *REQUIREMENT.—For projects that generate*  
 10          *carbon dioxide that is to be sequestered, the carbon di-*  
 11          *oxide stream shall be of a sufficient purity level to*  
 12          *allow for safe transport and sequestration.*

13          (5) *COST-SHARING.—The cost-sharing require-*  
 14          *ments of section 988 of the Energy Policy Act of 2005*  
 15          *(42 U.S.C. 16352) for research and development*  
 16          *projects shall apply to this section.*

17          (b) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
 18          *authorized to be appropriated to the Secretary to carry out*  
 19          *this section \$200,000,000 per year for fiscal years 2009*  
 20          *through 2013.*

21   **SEC. 704. REVIEW OF LARGE-SCALE PROGRAMS.**

22          *The Secretary shall enter into an arrangement with*  
 23          *the National Academy of Sciences for an independent re-*  
 24          *view and oversight, beginning in 2011, of the programs*  
 25          *under section 963(c)(3) of the Energy Policy Act of 2005*

1 (42 U.S.C. 16293(c)(3)), as added by section 702 of this  
 2 subtitle, and under section 703 of this subtitle, to ensure  
 3 that the benefits of such programs are maximized. Not later  
 4 than January 1, 2012, the Secretary shall transmit to the  
 5 Congress a report on the results of such review and over-  
 6 sight.

7 **SEC. 705. GEOLOGIC SEQUESTRATION TRAINING AND RE-**  
 8 **SEARCH.**

9 (a) *STUDY.*—

10 (1) *IN GENERAL.*—The Secretary shall enter into  
 11 an arrangement with the National Academy of  
 12 Sciences to undertake a study that—

13 (A) defines an interdisciplinary program in  
 14 geology, engineering, hydrology, environmental  
 15 science, and related disciplines that will support  
 16 the Nation’s capability to capture and sequester  
 17 carbon dioxide from anthropogenic sources;

18 (B) addresses undergraduate and graduate  
 19 education, especially to help develop graduate  
 20 level programs of research and instruction that  
 21 lead to advanced degrees with emphasis on geo-  
 22 logic sequestration science;

23 (C) develops guidelines for proposals from  
 24 colleges and universities with substantial capa-  
 25 bilities in the required disciplines that seek to

1       *implement geologic sequestration science pro-*  
 2       *grams that advance the Nation's capacity to ad-*  
 3       *dress carbon management through geologic se-*  
 4       *questration science; and*

5               *(D) outlines a budget and recommendations*  
 6       *for how much funding will be necessary to estab-*  
 7       *lish and carry out the grant program under sub-*  
 8       *section (b).*

9       *(2) REPORT.—Not later than 1 year after the*  
 10      *date of enactment of this Act, the Secretary shall*  
 11      *transmit to the Congress a copy of the results of the*  
 12      *study provided by the National Academy of Sciences*  
 13      *under paragraph (1).*

14           *(3) AUTHORIZATION OF APPROPRIATIONS.—*  
 15      *There are authorized to be appropriated to the Sec-*  
 16      *retary for carrying out this subsection \$1,000,000 for*  
 17      *fiscal year 2008.*

18      *(b) GRANT PROGRAM.—*

19           *(1) ESTABLISHMENT.—The Secretary shall estab-*  
 20      *lish a competitive grant program through which col-*  
 21      *leges and universities may apply for and receive 4-*  
 22      *year grants for—*

23               *(A) salary and startup costs for newly des-*  
 24      *ignated faculty positions in an integrated geo-*  
 25      *logic carbon sequestration science program; and*

1                   (B) *internships for graduate students in*  
 2                   *geologic sequestration science.*

3                   (2) *RENEWAL.—Grants under this subsection*  
 4                   *shall be renewable for up to 2 additional 3-year*  
 5                   *terms, based on performance criteria, established by*  
 6                   *the National Academy of Sciences study conducted*  
 7                   *under subsection (a), that include the number of grad-*  
 8                   *uates of such programs.*

9                   (3) *INTERFACE WITH REGIONAL GEOLOGIC CAR-*  
 10                  *BON SEQUESTRATION PARTNERSHIPS.—To the great-*  
 11                  *est extent possible, geologic carbon sequestration*  
 12                  *science programs supported under this subsection*  
 13                  *shall interface with the research of the Regional Car-*  
 14                  *bon Sequestration Partnerships operated by the De-*  
 15                  *partment to provide internships and practical train-*  
 16                  *ing in carbon capture and geologic sequestration.*

17                  (4) *AUTHORIZATION OF APPROPRIATIONS.—*  
 18                  *There are authorized to be appropriated to the Sec-*  
 19                  *retary for carrying out this subsection such sums as*  
 20                  *may be necessary.*

21 **SEC. 706. RELATION TO SAFE DRINKING WATER ACT.**

22                  *The injection and geologic sequestration of carbon di-*  
 23                  *oxide pursuant to this subtitle and the amendments made*  
 24                  *by this subtitle shall be subject to the requirements of the*  
 25                  *Safe Drinking Water Act (42 U.S.C. 300f et seq.), including*

1 *the provisions of part C of such Act (42 U.S.C. 300h et*  
 2 *seq.; relating to protection of underground sources of drink-*  
 3 *ing water). Nothing in this subtitle and the amendments*  
 4 *made by this subtitle imposes or authorizes the promulga-*  
 5 *tion of any requirement that is inconsistent or in conflict*  
 6 *with the requirements of the Safe Drinking Water Act (42*  
 7 *U.S.C. 300f et seq.) or regulations thereunder.*

8 **SEC. 707. SAFETY RESEARCH.**

9       (a) *PROGRAM.*—*The Administrator of the Environ-*  
 10 *mental Protection Agency shall conduct a research program*  
 11 *to address public health, safety, and environmental impacts*  
 12 *that may be associated with capture, injection, and seques-*  
 13 *tration of greenhouse gases in geologic reservoirs.*

14       (b) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 15 *authorized to be appropriated for carrying out this section*  
 16 *\$5,000,000 for each fiscal year.*

17 **SEC. 708. UNIVERSITY BASED RESEARCH AND DEVELOP-**  
 18 **MENT GRANT PROGRAM.**

19       (a) *ESTABLISHMENT.*—*The Secretary, in consultation*  
 20 *with other appropriate agencies, shall establish a university*  
 21 *based research and development program to study carbon*  
 22 *capture and sequestration using the various types of coal.*

23       (b) *RURAL AND AGRICULTURAL INSTITUTIONS.*—*The*  
 24 *Secretary shall give special consideration to rural or agri-*  
 25 *cultural based institutions in areas that have regional*



1 *sources of coal and that offer interdisciplinary programs*  
 2 *in the area of environmental science to study carbon cap-*  
 3 *ture and sequestration.*

4 *(c) AUTHORIZATION OF APPROPRIATIONS.—There are*  
 5 *to be authorized to be appropriated \$10,000,000 to carry*  
 6 *out this section.*

7 ***Subtitle B—Carbon Capture and***  
 8 ***Sequestration Assessment and***  
 9 ***Framework***

10 ***SEC. 711. CARBON DIOXIDE SEQUESTRATION CAPACITY AS-***  
 11 ***SESSMENT.***

12 *(a) DEFINITIONS.—In this section*

13 *(1) ASSESSMENT.—The term “assessment”*  
 14 *means the national assessment of onshore capacity for*  
 15 *carbon dioxide completed under subsection (f).*

16 *(2) CAPACITY.—The term “capacity” means the*  
 17 *portion of a sequestration formation that can retain*  
 18 *carbon dioxide in accordance with the requirements*  
 19 *(including physical, geological, and economic require-*  
 20 *ments) established under the methodology developed*  
 21 *under subsection (b).*

22 *(3) ENGINEERED HAZARD.—The term “engi-*  
 23 *neered hazard” includes the location and completion*  
 24 *history of any well that could affect potential seques-*  
 25 *tration.*

1           (4) *RISK*.—The term “risk” includes any risk  
2           posed by geomechanical, geochemical, hydrogeological,  
3           structural, and engineered hazards.

4           (5) *SECRETARY*.—The term “Secretary” means  
5           the Secretary of the Interior, acting through the Di-  
6           rector of the United States Geological Survey.

7           (6) *SEQUESTRATION FORMATION*.—The term “se-  
8           questration formation” means a deep saline forma-  
9           tion, unmineable coal seam, or oil or gas reservoir  
10          that is capable of accommodating a volume of indus-  
11          trial carbon dioxide.

12          (b) *METHODOLOGY*.—Not later than 1 year after the  
13          date of enactment of this Act, the Secretary shall develop  
14          a methodology for conducting an assessment under sub-  
15          section (f), taking into consideration—

16               (1) the geographical extent of all potential se-  
17               questration formations in all States;

18               (2) the capacity of the potential sequestration  
19               formations;

20               (3) the injectivity of the potential sequestration  
21               formations;

22               (4) an estimate of potential volumes of oil and  
23               gas recoverable by injection and sequestration of in-  
24               dustrial carbon dioxide in potential sequestration for-  
25               mations;

1           (5) *the risk associated with the potential seques-*  
2           *tration formations; and*

3           (6) *the work done to develop the Carbon Seques-*  
4           *tration Atlas of the United States and Canada that*  
5           *was completed by the Department.*

6           (c) *COORDINATION.—*

7           (1) *FEDERAL COORDINATION.—*

8                   (A) *CONSULTATION.—The Secretary shall*  
9                   *consult with the Secretary of Energy and the Ad-*  
10                  *ministrator of the Environmental Protection*  
11                  *Agency on issues of data sharing, format, devel-*  
12                  *opment of the methodology, and content of the*  
13                  *assessment required under this section to ensure*  
14                  *the maximum usefulness and success of the as-*  
15                  *essment.*

16                  (B) *COOPERATION.—The Secretary of En-*  
17                  *ergy and the Administrator shall cooperate with*  
18                  *the Secretary to ensure, to the maximum extent*  
19                  *practicable, the usefulness and success of the as-*  
20                  *essment.*

21           (2) *STATE COORDINATION.—The Secretary shall*  
22           *consult with State geological surveys and other rel-*  
23           *evant entities to ensure, to the maximum extent prac-*  
24           *ticable, the usefulness and success of the assessment.*

1       (d) *EXTERNAL REVIEW AND PUBLICATION.*—On com-  
 2       pletion of the methodology under subsection (b), the Sec-  
 3       retary shall—

4               (1) *publish the methodology and solicit comments*  
 5       *from the public and the heads of affected Federal and*  
 6       *State agencies;*

7               (2) *establish a panel of individuals with exper-*  
 8       *tise in the matters described in paragraphs (1)*  
 9       *through (5) of subsection (b) composed, as appro-*  
 10       *priate, of representatives of Federal agencies, institu-*  
 11       *tions of higher education, nongovernmental organiza-*  
 12       *tions, State organizations, industry, and inter-*  
 13       *national geoscience organizations to review the meth-*  
 14       *odology and comments received under paragraph (1);*  
 15       *and*

16              (3) *on completion of the review under paragraph*  
 17       *(2), publish in the Federal Register the revised final*  
 18       *methodology.*

19       (e) *PERIODIC UPDATES.*—*The methodology developed*  
 20       *under this section shall be updated periodically (including*  
 21       *at least once every 5 years) to incorporate new data as the*  
 22       *data becomes available.*

23       (f) *NATIONAL ASSESSMENT.*—

24              (1) *IN GENERAL.*—*Not later than 2 years after*  
 25       *the date of publication of the methodology under sub-*

1        *section (d)(1), the Secretary, in consultation with the*  
2        *Secretary of Energy and State geological surveys,*  
3        *shall complete a national assessment of capacity for*  
4        *carbon dioxide in accordance with the methodology.*

5            (2) *GEOLOGICAL VERIFICATION.—As part of the*  
6        *assessment under this subsection, the Secretary shall*  
7        *carry out a drilling program to supplement the geo-*  
8        *logical data relevant to determining sequestration ca-*  
9        *capacity of carbon dioxide in geological sequestration*  
10       *formations, including—*

11            (A) *well log data;*

12            (B) *core data; and*

13            (C) *fluid sample data.*

14            (3) *PARTNERSHIP WITH OTHER DRILLING PRO-*  
15        *GRAMS.—As part of the drilling program under para-*  
16        *graph (2), the Secretary shall enter, as appropriate,*  
17        *into partnerships with other entities to collect and in-*  
18        *tegrate data from other drilling programs relevant to*  
19        *the sequestration of carbon dioxide in geological for-*  
20        *mations.*

21            (4) *INCORPORATION INTO NATCARB.—*

22            (A) *IN GENERAL.—On completion of the as-*  
23        *essment, the Secretary of Energy and the Sec-*  
24        *retary of the Interior shall incorporate the re-*  
25        *sults of the assessment using—*

1                   (i) the NatCarb database, to the max-  
2                   imum extent practicable; or

3                   (ii) a new database developed by the  
4                   Secretary of Energy, as the Secretary of  
5                   Energy determines to be necessary.

6                   (B) *RANKING.*—The database shall include  
7                   the data necessary to rank potential sequestra-  
8                   tion sites for capacity and risk, across the  
9                   United States, within each State, by formation,  
10                  and within each basin.

11                  (5) *REPORT.*—Not later than 180 days after the  
12                  date on which the assessment is completed, the Sec-  
13                  retary shall submit to the Committee on Energy and  
14                  Natural Resources of the Senate and the Committee  
15                  on Natural Resources of the House of Representatives  
16                  a report describing the findings under the assessment.

17                  (6) *PERIODIC UPDATES.*—The national assess-  
18                  ment developed under this section shall be updated pe-  
19                  riodically (including at least once every 5 years) to  
20                  support public and private sector decisionmaking.

21                  (g) *AUTHORIZATION OF APPROPRIATIONS.*—There is  
22                  authorized to be appropriated to carry out this section  
23                  \$30,000,000 for the period of fiscal years 2008 through  
24                  2012.

1 **SEC. 712. ASSESSMENT OF CARBON SEQUESTRATION AND**  
 2 **METHANE AND NITROUS OXIDE EMISSIONS**  
 3 **FROM ECOSYSTEMS.**

4 (a) *DEFINITIONS.—In this section:*

5 (1) *ADAPTATION STRATEGY.—The term “adapta-*  
 6 *tion strategy” means a land use and management*  
 7 *strategy that can be used—*

8 (A) *to increase the sequestration capabilities*  
 9 *of covered greenhouse gases of any ecosystem; or*

10 (B) *to reduce the emissions of covered green-*  
 11 *house gases from any ecosystem.*

12 (2) *ASSESSMENT.—The term “assessment”*  
 13 *means the national assessment authorized under sub-*  
 14 *section (b).*

15 (3) *COVERED GREENHOUSE GAS.—The term*  
 16 *“covered greenhouse gas” means carbon dioxide, ni-*  
 17 *trous oxide, and methane gas.*

18 (4) *ECOSYSTEM.—The term “ecosystem” means*  
 19 *any terrestrial, freshwater aquatic, or coastal eco-*  
 20 *system, including an estuary.*

21 (5) *NATIVE PLANT SPECIES.—The term “native*  
 22 *plant species” means any noninvasive, naturally oc-*  
 23 *curring plant species within an ecosystem.*

24 (6) *SECRETARY.—The term “Secretary” means*  
 25 *the Secretary of the Interior.*

1       (b) *AUTHORIZATION OF ASSESSMENT.*—Not later than  
2 2 years after the date on which the final methodology is  
3 published under subsection (f)(3)(D), the Secretary shall  
4 complete a national assessment of—

5           (1) *the quantity of carbon stored in and released*  
6 *from ecosystems, including from man-caused and nat-*  
7 *ural fires; and*

8           (2) *the annual flux of covered greenhouse gases*  
9 *in and out of ecosystems.*

10       (c) *COMPONENTS.*—In conducting the assessment  
11 under subsection (b), the Secretary shall—

12           (1) *determine the processes that control the flux*  
13 *of covered greenhouse gases in and out of each eco-*  
14 *system;*

15           (2) *estimate the potential for increasing carbon*  
16 *sequestration in natural and managed ecosystems*  
17 *through management activities or restoration activi-*  
18 *ties in each ecosystem;*

19           (3) *develop near-term and long-term adaptation*  
20 *strategies or mitigation strategies that can be*  
21 *employed—*

22               (A) *to enhance the sequestration of carbon*  
23 *in each ecosystem;*

24               (B) *to reduce emissions of covered green-*  
25 *house gases from ecosystems; and*



1                   (C) to adapt to climate change; and

2                   (4) estimate the annual carbon sequestration ca-  
3           capacity of ecosystems under a range of policies in sup-  
4           port of management activities to optimize sequestra-  
5           tion.

6           (d) *USE OF NATIVE PLANT SPECIES.*—In developing  
7           restoration activities under subsection (c)(2) and manage-  
8           ment strategies and adaptation strategies under subsection  
9           (c)(3), the Secretary shall emphasize the use of native plant  
10          species (including mixtures of many native plant species)  
11          for sequestering covered greenhouse gas in each ecosystem.

12          (e) *CONSULTATION.*—

13               (1) *IN GENERAL.*—In conducting the assessment  
14           under subsection (b) and developing the methodology  
15           under subsection (f), the Secretary shall consult  
16           with—

17                   (A) the Secretary of Energy;

18                   (B) the Secretary of Agriculture;

19                   (C) the Administrator of the Environmental  
20           Protection Agency;

21                   (D) the Secretary of Commerce, acting  
22           through the Under Secretary for Oceans and At-  
23           mosphere; and

24                   (E) the heads of other relevant agencies.

1           (2) *OCEAN AND COASTAL ECOSYSTEMS.*—*In car-*  
2           *rying out this section with respect to ocean and coast-*  
3           *al ecosystems (including estuaries), the Secretary*  
4           *shall work jointly with the Secretary of Commerce,*  
5           *acting through the Under Secretary for Oceans and*  
6           *Atmosphere.*

7           (f) *METHODOLOGY.*—

8           (1) *IN GENERAL.*—*Not later than 1 year after*  
9           *the date of enactment of this Act, the Secretary shall*  
10          *develop a methodology for conducting the assessment.*

11          (2) *REQUIREMENTS.*—*The methodology developed*  
12          *under paragraph (1)—*

13                (A) *shall—*

14                   (i) *determine the method for meas-*  
15                   *uring, monitoring, and quantifying covered*  
16                   *greenhouse gas emissions and reductions;*

17                   (ii) *estimate the total capacity of each*  
18                   *ecosystem to sequester carbon; and*

19                   (iii) *estimate the ability of each eco-*  
20                   *system to reduce emissions of covered green-*  
21                   *house gases through management practices;*  
22                   *and*

23                (B) *may employ economic and other sys-*  
24                *tems models, analyses, and estimates, to be devel-*

1            *oped in consultation with each of the individuals*  
2            *described in subsection (e).*

3            (3) *EXTERNAL REVIEW AND PUBLICATION.—On*  
4            *completion of a proposed methodology, the Secretary*  
5            *shall—*

6                    (A) *publish the proposed methodology;*

7                    (B) *at least 60 days before the date on*  
8                    *which the final methodology is published, solicit*  
9                    *comments from—*

10                          (i) *the public; and*

11                          (ii) *heads of affected Federal and State*  
12                          *agencies;*

13                    (C) *establish a panel to review the proposed*  
14                    *methodology published under subparagraph (A)*  
15                    *and any comments received under subparagraph*  
16                    *(B), to be composed of members—*

17                          (i) *with expertise in the matters de-*  
18                          *scribed in subsections (c) and (d); and*

19                          (ii) *that are, as appropriate, represent-*  
20                          *atives of Federal agencies, institutions of*  
21                          *higher education, nongovernmental organi-*  
22                          *zations, State organizations, industry, and*  
23                          *international organizations; and*

1                   (D) on completion of the review under sub-  
 2                   paragraph (C), publish in the Federal register  
 3                   the revised final methodology.

4           (g) *ESTIMATE; REVIEW.*—The Secretary shall—

5                   (1) based on the assessment, prescribe the data,  
 6                   information, and analysis needed to establish a sci-  
 7                   entifically sound estimate of the carbon sequestration  
 8                   capacity of relevant ecosystems; and

9                   (2) not later than 180 days after the date on  
 10                  which the assessment is completed, submit to the  
 11                  heads of applicable Federal agencies and the appro-  
 12                  priate committees of Congress a report that describes  
 13                  the results of the assessment.

14          (h) *DATA AND REPORT AVAILABILITY.*—On completion  
 15 of the assessment, the Secretary shall incorporate the results  
 16 of the assessment into a web-accessible database for public  
 17 use.

18          (i) *AUTHORIZATION.*—There is authorized to be appro-  
 19 priated to carry out this section \$20,000,000 for the period  
 20 of fiscal years 2008 through 2012.

21 **SEC. 713. CARBON DIOXIDE SEQUESTRATION INVENTORY.**

22          Section 354 of the Energy Policy Act of 2005 (42  
 23 U.S.C. 15910) is amended—

24                  (1) by redesignating subsection (d) as subsection  
 25                  (e); and

1           (2) *by inserting after subsection (c) the fol-*  
 2       *lowing:*

3       “(d) *RECORDS AND INVENTORY.*—*The Secretary of the*  
 4       *Interior, acting through the Bureau of Land Management,*  
 5       *shall maintain records on, and an inventory of, the quan-*  
 6       *tity of carbon dioxide stored within Federal mineral lease-*  
 7       *holds.”.*

8       **SEC. 714. FRAMEWORK FOR GEOLOGICAL CARBON SEQUES-**  
 9                               **TRATION ON PUBLIC LAND.**

10       (a) *REPORT.*—*Not later than 1 year after the date of*  
 11       *enactment of this Act, the Secretary of the Interior shall*  
 12       *submit to the Committee on Natural Resources of the House*  
 13       *of Representatives and the Committee on Energy and Nat-*  
 14       *ural Resources of the Senate a report on a recommended*  
 15       *framework for managing geological carbon sequestration ac-*  
 16       *tivities on public land.*

17       (b) *CONTENTS.*—*The report required by subsection (a)*  
 18       *shall include the following:*

19               (1) *Recommended criteria for identifying can-*  
 20       *didate geological sequestration sites in each of the fol-*  
 21       *lowing types of geological settings:*

22                       (A) *Operating oil and gas fields.*

23                       (B) *Depleted oil and gas fields.*

24                       (C) *Unmineable coal seams.*

25                       (D) *Deep saline formations.*

1                   (E) *Deep geological systems that may be*  
 2                   *used as engineered reservoirs to extract economi-*  
 3                   *cal quantities of heat from geothermal resources*  
 4                   *of low permeability or porosity.*

5                   (F) *Deep geological systems containing ba-*  
 6                   *salt formations.*

7                   (G) *Coalbeds being used for methane recov-*  
 8                   *ery.*

9                   (2) *A proposed regulatory framework for the*  
 10                  *leasing of public land or an interest in public land*  
 11                  *for the long-term geological sequestration of carbon di-*  
 12                  *oxide, which includes an assessment of options to en-*  
 13                  *sure that the United States receives fair market value*  
 14                  *for the use of public land or an interest in public*  
 15                  *land for geological sequestration.*

16                  (3) *A proposed procedure for ensuring that any*  
 17                  *geological carbon sequestration activities on public*  
 18                  *land—*

19                         (A) *provide for public review and comment*  
 20                         *from all interested persons; and*

21                         (B) *protect the quality of natural and cul-*  
 22                         *tural resources of the public land overlaying a*  
 23                         *geological sequestration site.*

24                   (4) *A description of the status of Federal lease-*  
 25                   *hold or Federal mineral estate liability issues related*

1       to the geological subsurface trespass of or caused by  
2       carbon dioxide stored in public land, including any  
3       relevant experience from enhanced oil recovery using  
4       carbon dioxide on public land.

5               (5) *Recommendations for additional legislation*  
6       that may be required to ensure that public land man-  
7       agement and leasing laws are adequate to accommo-  
8       date the long-term geological sequestration of carbon  
9       dioxide.

10              (6) *An identification of the legal and regulatory*  
11       issues specific to carbon dioxide sequestration on land  
12       in cases in which title to mineral resources is held by  
13       the United States but title to the surface estate is not  
14       held by the United States.

15              (7)(A) *An identification of the issues specific to*  
16       the issuance of pipeline rights-of-way on public land  
17       under the Mineral Leasing Act (30 U.S.C. 181 et seq.)  
18       or the Federal Land Policy and Management Act of  
19       1976 (43 U.S.C. 1701 et seq.) for natural or anthro-  
20       pogenic carbon dioxide.

21              (B) *Recommendations for additional legislation*  
22       that may be required to clarify the appropriate  
23       framework for issuing rights-of-way for carbon diox-  
24       ide pipelines on public land.

1       (c) *CONSULTATION WITH OTHER AGENCIES.*—*In pre-*  
 2 *paring the report under this section, the Secretary of the*  
 3 *Interior shall coordinate with—*

4               (1) *the Administrator of the Environmental Pro-*  
 5 *tection Agency;*

6               (2) *the Secretary of Energy; and*

7               (3) *the heads of other appropriate agencies.*

8       (d) *COMPLIANCE WITH SAFE DRINKING WATER*  
 9 *ACT.*—*The Secretary shall ensure that all recommendations*  
 10 *developed under this section are in compliance with all Fed-*  
 11 *eral environmental laws, including the Safe Drinking*  
 12 *Water Act (42 U.S.C. 300f et seq.) and regulations under*  
 13 *that Act.*

14 ***TITLE VIII—IMPROVED MANAGE-***  
 15 ***MENT OF ENERGY POLICY***

16 ***Subtitle A—Management***  
 17 ***Improvements***

18 ***SEC. 801. NATIONAL MEDIA CAMPAIGN.***

19       (a) *IN GENERAL.*—*The Secretary, acting through the*  
 20 *Assistant Secretary for Energy Efficiency and Renewable*  
 21 *Energy (referred to in this section as the “Secretary”), shall*  
 22 *develop and conduct a national media campaign—*

23               (1) *to increase energy efficiency throughout the*  
 24 *economy of the United States during the 10-year pe-*  
 25 *riod beginning on the date of enactment of this Act;*



1           (2) *to promote the national security benefits as-*  
2           *sociated with increased energy efficiency; and*

3           (3) *to decrease oil consumption in the United*  
4           *States during the 10-year period beginning on the*  
5           *date of enactment of this Act.*

6           (b) *CONTRACT WITH ENTITY.—The Secretary shall*  
7           *carry out subsection (a) directly or through—*

8                   (1) *competitively bid contracts with 1 or more*  
9                   *nationally recognized media firms for the development*  
10                  *and distribution of monthly television, radio, and*  
11                  *newspaper public service announcements; or*

12                  (2) *collective agreements with 1 or more nation-*  
13                  *ally recognized institutes, businesses, or nonprofit or-*  
14                  *ganizations for the funding, development, and dis-*  
15                  *tribution of monthly television, radio, and newspaper*  
16                  *public service announcements.*

17           (c) *USE OF FUNDS.—*

18                  (1) *IN GENERAL.—Amounts made available to*  
19                  *carry out this section shall be used for—*

20                          (A) *advertising costs, including—*

21                                  (i) *the purchase of media time and*  
22                                  *space;*

23                                  (ii) *creative and talent costs;*

24                                  (iii) *testing and evaluation of adver-*  
25                                  *tising; and*

1                   (iv) evaluation of the effectiveness of  
2                   the media campaign; and

3                   (B) administrative costs, including oper-  
4                   ational and management expenses.

5                   (2) LIMITATIONS.—In carrying out this section,  
6                   the Secretary shall allocate not less than 85 percent  
7                   of funds made available under subsection (e) for each  
8                   fiscal year for the advertising functions specified  
9                   under paragraph (1)(A).

10                  (d) REPORTS.—The Secretary shall annually submit  
11                  to Congress a report that describes—

12                   (1) the strategy of the national media campaign  
13                   and whether specific objectives of the campaign were  
14                   accomplished, including—

15                   (A) determinations concerning the rate of  
16                   change of energy consumption, in both absolute  
17                   and per capita terms; and

18                   (B) an evaluation that enables consider-  
19                   ation of whether the media campaign contributed  
20                   to reduction of energy consumption;

21                   (2) steps taken to ensure that the national media  
22                   campaign operates in an effective and efficient man-  
23                   ner consistent with the overall strategy and focus of  
24                   the campaign;

7           (5) all contracts or cooperative agreements en-  
8       tered into with a corporation, partnership, or indi-  
9       vidual working on behalf of the national media cam-  
10      paign.

(1) *IN GENERAL.*—There is authorized to be appropriated to carry out this section \$5,000,000 for each of fiscal years 2008 through 2012.

21 SEC. 802. ALASKA NATURAL GAS PIPELINE ADMINISTRA-  
22 TION.

23        *Section 106 of the Alaska Natural Gas Pipeline Act*  
24    *(15 U.S.C. 720d) is amended by adding at the end the fol-*  
25    *lowing:*

1 “(h) *ADMINISTRATION.*—

2 “(1) *PERSONNEL APPOINTMENTS.*—

3 “(A) *IN GENERAL.*—*The Federal Coordi-*  
 4 *nator may appoint and terminate such personnel*  
 5 *as the Federal Coordinator determines to be ap-*  
 6 *propriate.*

7 “(B) *AUTHORITY OF FEDERAL COORDI-*  
 8 *NATOR.*—*Personnel appointed by the Federal Co-*  
 9 *ordinator under subparagraph (A) shall be ap-*  
 10 *pointed without regard to the provisions of title*  
 11 *5, United States Code, governing appointments*  
 12 *in the competitive service.*

13 “(2) *COMPENSATION.*—

14 “(A) *IN GENERAL.*—*Subject to subpara-*  
 15 *graph (B), personnel appointed by the Federal*  
 16 *Coordinator under paragraph (1)(A) shall be*  
 17 *paid without regard to the provisions of chapter*  
 18 *51 and subchapter III of chapter 53 of title 5,*  
 19 *United States Code (relating to classification*  
 20 *and General Schedule pay rates).*

21 “(B) *MAXIMUM LEVEL OF COMPENSA-*  
 22 *TION.*—*The rate of pay for personnel appointed*  
 23 *by the Federal Coordinator under paragraph*  
 24 *(1)(A) shall not exceed the maximum level of rate*

1        *payable for level III of the Executive Schedule (5*  
2        *U.S.C. 5314).*

3                “(C) *ALLOWANCES.*—Section 5941 of title 5,  
4        *United States Code, shall apply to personnel ap-*  
5        *pointed by the Federal Coordinator under para-*  
6        *graph (1)(A).*

7                “(3) *TEMPORARY SERVICES.*—

8                “(A) *IN GENERAL.*—The Federal Coordi-  
9        *nator may procure temporary and intermittent*  
10       *services in accordance with section 3109(b) of*  
11       *title 5, United States Code.*

12               “(B) *MAXIMUM LEVEL OF COMPENSA-*  
13       *TION.*—The level of compensation of an indi-  
14       *vidual employed on a temporary or intermittent*  
15       *basis under subparagraph (A) shall not exceed*  
16       *the maximum level of rate payable for level III*  
17       *of the Executive Schedule (5 U.S.C. 5314).*

18               “(4) *FEEES, CHARGES, AND COMMISSIONS.*—

19               “(A) *IN GENERAL.*—With respect to the du-  
20       *ties of the Federal Coordinator, as described in*  
21       *this Act, the Federal Coordinator shall have*  
22       *similar authority to establish, change, and abol-*  
23       *ish reasonable filing and service fees, charges,*  
24       *and commissions, require deposits of payments,*  
25       *and provide refunds as provided to the Secretary*

of the Interior in section 304 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1734).

“(B) *AUTHORITY OF SECRETARY OF THE INTERIOR.*—Subparagraph (A) shall not affect the authority of the Secretary of the Interior to establish, change, and abolish reasonable filing and service fees, charges, and commissions, require deposits of payments, and provide refunds under section 304 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1734).

“(C) *USE OF FUNDS.*—The Federal Coordinator is authorized to use, without further appropriation, amounts collected under subparagraph (A) to carry out this section.”.

**SEC. 803. RENEWABLE ENERGY DEPLOYMENT.**

(a) *DEFINITIONS.*—In this section:

(1) *ALASKA SMALL HYDROELECTRIC POWER.*—

The term “Alaska small hydroelectric power” means power that—

(A) is generated—

(i) in the State of Alaska;

(ii) without the use of a dam or impoundment of water; and

(iii) through the use of—

1                   (I) a lake tap (but not a perched  
2                   alpine lake); or

3                   (II) a run-of-river screened at the  
4                   point of diversion; and

5                   (B) has a nameplate capacity rating of a  
6                   wattage that is not more than 15 megawatts.

7                   (2) *ELIGIBLE APPLICANT*.—The term “eligible  
8                   applicant” means any—

9                   (A) governmental entity;

10                  (B) private utility;

11                  (C) public utility;

12                  (D) municipal utility;

13                  (E) cooperative utility;

14                  (F) Indian tribes; and

15                  (G) *Regional Corporation* (as defined in  
16                  section 3 of the *Alaska Native Claims Settlement*  
17                  *Act* (43 U.S.C. 1602)).

18                  (3) *OCEAN ENERGY*.—

19                  (A) *INCLUSIONS*.—The term “ocean energy”  
20                  includes current, wave, and tidal energy.

21                  (B) *EXCLUSION*.—The term “ocean energy”  
22                  excludes thermal energy.

23                  (4) *RENEWABLE ENERGY PROJECT*.—The term  
24                  “renewable energy project” means a project—

1           (A) *for the commercial generation of elec-*  
 2           *tricity; and*

3           (B) *that generates electricity from—*

4                 (i) *solar, wind, or geothermal energy*  
 5                 *or ocean energy;*

6                 (ii) *biomass (as defined in section*  
 7                 *203(b) of the Energy Policy Act of 2005 (42*  
 8                 *U.S.C. 15852(b)));;*

9                 (iii) *landfill gas; or*

10                (iv) *Alaska small hydroelectric power.*

11       (b) *RENEWABLE ENERGY CONSTRUCTION GRANTS.—*

12               (1) *IN GENERAL.—The Secretary shall use*  
 13               *amounts appropriated under this section to make*  
 14               *grants for use in carrying out renewable energy*  
 15               *projects.*

16               (2) *CRITERIA.—Not later than 180 days after the*  
 17               *date of enactment of this Act, the Secretary shall set*  
 18               *forth criteria for use in awarding grants under this*  
 19               *section.*

20               (3) *APPLICATION.—To receive a grant from the*  
 21               *Secretary under paragraph (1), an eligible applicant*  
 22               *shall submit to the Secretary an application at such*  
 23               *time, in such manner, and containing such informa-*  
 24               *tion as the Secretary may require, including a writ-*  
 25               *ten assurance that—*



1           (A) *all laborers and mechanics employed by*  
 2           *contractors or subcontractors during construc-*  
 3           *tion, alteration, or repair that is financed, in*  
 4           *whole or in part, by a grant under this section*  
 5           *shall be paid wages at rates not less than those*  
 6           *prevailing on similar construction in the local-*  
 7           *ity, as determined by the Secretary of Labor in*  
 8           *accordance with sections 3141–3144, 3146, and*  
 9           *3147 of title 40, United States Code; and*

10           (B) *the Secretary of Labor shall, with re-*  
 11           *spect to the labor standards described in this*  
 12           *paragraph, have the authority and functions set*  
 13           *forth in Reorganization Plan Numbered 14 of*  
 14           *1950 (5 U.S.C. App.) and section 3145 of title*  
 15           *40, United States Code.*

16           (4) *NON-FEDERAL SHARE.—Each eligible appli-*  
 17           *cant that receives a grant under this subsection shall*  
 18           *contribute to the total cost of the renewable energy*  
 19           *project constructed by the eligible applicant an*  
 20           *amount not less than 50 percent of the total cost of*  
 21           *the project.*

22           (c) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
 23           *authorized to be appropriated to the Fund such sums as*  
 24           *are necessary to carry out this section.*

1 **SEC. 804. COORDINATION OF PLANNED REFINERY OUT-**  
 2 **AGES.**

3 (a) *DEFINITIONS.—In this section:*

4 (1) *ADMINISTRATOR.—The term “Adminis-*  
 5 *trator” means the Administrator of the Energy Infor-*  
 6 *mation Administration.*

7 (2) *PLANNED REFINERY OUTAGE.—*

8 (A) *IN GENERAL.—The term “planned re-*  
 9 *finery outage” means a removal, scheduled before*  
 10 *the date on which the removal occurs, of a refin-*  
 11 *ery, or any unit of a refinery, from service for*  
 12 *maintenance, repair, or modification.*

13 (B) *EXCLUSION.—The term “planned refin-*  
 14 *ery outage” does not include any necessary and*  
 15 *unplanned removal of a refinery, or any unit of*  
 16 *a refinery, from service as a result of a compo-*  
 17 *nent failure, safety hazard, emergency, or action*  
 18 *reasonably anticipated to be necessary to prevent*  
 19 *such events.*

20 (3) *REFINED PETROLEUM PRODUCT.—The term*  
 21 *“refined petroleum product” means any gasoline, die-*  
 22 *sel fuel, fuel oil, lubricating oil, liquid petroleum gas,*  
 23 *or other petroleum distillate that is produced through*  
 24 *the refining or processing of crude oil or an oil de-*  
 25 *rived from tar sands, shale, or coal.*

1           (4) *REFINERY.*—*The term “refinery” means a*  
2           *facility used in the production of a refined petroleum*  
3           *product through distillation, cracking, or any other*  
4           *process.*

5           (b) *REVIEW AND ANALYSIS OF AVAILABLE INFORMA-*  
6           *TION.*—*The Administrator shall, on an ongoing basis—*

7                 (1) *review information on refinery outages that*  
8                 *is available from commercial reporting services;*

9                 (2) *analyze that information to determine wheth-*  
10                *er the scheduling of a refinery outage may nationally*  
11                *or regionally substantially affect the price or supply*  
12                *of any refined petroleum product by—*

13                         (A) *decreasing the production of the refined*  
14                         *petroleum product; and*

15                         (B) *causing or contributing to a retail or*  
16                         *wholesale supply shortage or disruption;*

17                 (3) *not less frequently than twice each year, sub-*  
18                 *mit to the Secretary a report describing the results of*  
19                 *the review and analysis under paragraphs (1) and*  
20                 *(2); and*

21                 (4) *specifically alert the Secretary of any refin-*  
22                 *ery outage that the Administrator determines may*  
23                 *nationally or regionally substantially affect the price*  
24                 *or supply of a refined petroleum product.*

1       (c) *ACTION BY SECRETARY.*—On a determination by  
 2   the Secretary, based on a report or alert under paragraph  
 3   (3) or (4) of subsection (b), that a refinery outage may affect  
 4   the price or supply of a refined petroleum product, the Sec-  
 5   retary shall make available to refinery operators informa-  
 6   tion on planned refinery outages to encourage reductions  
 7   of the quantity of refinery capacity that is out of service  
 8   at any time.

9       (d) *LIMITATION.*—Nothing in this section shall alter  
 10   any existing legal obligation or responsibility of a refinery  
 11   operator, or create any legal right of action, nor shall this  
 12   section authorize the Secretary—

13           (1) to prohibit a refinery operator from con-  
 14   ducting a planned refinery outage; or

15           (2) to require a refinery operator to continue to  
 16   operate a refinery.

17   **SEC. 805. ASSESSMENT OF RESOURCES.**

18       (a) *5-YEAR PLAN.*—

19           (1) *ESTABLISHMENT.*—The Administrator of the  
 20   Energy Information Administration (referred to in  
 21   this section as the “Administrator”) shall establish a  
 22   5-year plan to enhance the quality and scope of the  
 23   data collection necessary to ensure the scope, accu-  
 24   racy, and timeliness of the information needed for ef-

1        *efficient functioning of energy markets and related fi-*  
2        *nancial operations.*

3            (2) *REQUIREMENT.—In establishing the plan*  
4        *under paragraph (1), the Administrator shall pay*  
5        *particular attention to—*

6            (A) *data series terminated because of budget*  
7        *constraints;*

8            (B) *data on demand response;*

9            (C) *timely data series of State-level infor-*  
10       *mation;*

11          (D) *improvements in the area of oil and gas*  
12       *data;*

13          (E) *improvements in data on solid byprod-*  
14       *ucts from coal-based energy-producing facilities;*  
15       *and*

16          (F) *the ability to meet applicable deadlines*  
17       *under Federal law (including regulations) to*  
18       *provide data required by Congress.*

19        (b) *SUBMISSION TO CONGRESS.—The Administrator*  
20       *shall submit to Congress the plan established under sub-*  
21       *section (a), including a description of any improvements*  
22       *needed to enhance the ability of the Administrator to collect*  
23       *and process energy information in a manner consistent*  
24       *with the needs of energy markets.*

25        (c) *GUIDELINES.—*

1           (1) *IN GENERAL.*—*The Administrator shall—*

2                   (A) *establish guidelines to ensure the qual-*  
3                   *ity, comparability, and scope of State energy*  
4                   *data, including data on energy production and*  
5                   *consumption by product and sector and renew-*  
6                   *able and alternative sources, required to provide*  
7                   *a comprehensive, accurate energy profile at the*  
8                   *State level;*

9                   (B) *share company-level data collected at*  
10                  *the State level with each State involved, in a*  
11                  *manner consistent with the legal authorities,*  
12                  *confidentiality protections, and stated uses in ef-*  
13                  *fect at the time the data were collected, subject to*  
14                  *the condition that the State shall agree to reason-*  
15                  *able requirements for use of the data, as the Ad-*  
16                  *ministrator may require;*

17                  (C) *assess any existing gaps in data ob-*  
18                  *tained and compiled by the Energy Information*  
19                  *Administration; and*

20                  (D) *evaluate the most cost-effective ways to*  
21                  *address any data quality and quantity issues in*  
22                  *conjunction with State officials.*

23           (2) *CONSULTATION.*—*The Administrator shall*  
24           *consult with State officials and the Federal Energy*  
25           *Regulatory Commission on a regular basis in—*

1                   (A) establishing guidelines and determining  
 2                   the scope of State-level data under paragraph  
 3                   (1); and

4                   (B) exploring ways to address data needs  
 5                   and serve data uses.

6           (d) *ASSESSMENT OF STATE DATA NEEDS.*—Not later  
 7 than 1 year after the date of enactment of this Act, the Ad-  
 8 ministrator shall submit to Congress an assessment of  
 9 State-level data needs, including a plan to address the  
 10 needs.

11          (e) *AUTHORIZATION OF APPROPRIATIONS.*—In addi-  
 12 tion to any other amounts made available to the Adminis-  
 13 trator, there are authorized to be appropriated to the Ad-  
 14 ministrator to carry out this section—

15                   (1) \$10,000,000 for fiscal year 2008;

16                   (2) \$10,000,000 for fiscal year 2009;

17                   (3) \$10,000,000 for fiscal year 2010;

18                   (4) \$15,000,000 for fiscal year 2011;

19                   (5) \$20,000,000 for fiscal year 2012; and

20                   (6) such sums as are necessary for subsequent fis-  
 21 cal years.

22 **SEC. 806. SENSE OF CONGRESS RELATING TO THE USE OF**  
 23 **RENEWABLE RESOURCES TO GENERATE EN-**  
 24 **ERGY.**

25          (a) *FINDINGS.*—Congress finds that—

1           (1) *the United States has a quantity of renew-*  
2           *able energy resources that is sufficient to supply a*  
3           *significant portion of the energy needs of the United*  
4           *States;*

5           (2) *the agricultural, forestry, and working land*  
6           *of the United States can help ensure a sustainable do-*  
7           *mestic energy system;*

8           (3) *accelerated development and use of renewable*  
9           *energy technologies provide numerous benefits to the*  
10          *United States, including improved national security,*  
11          *improved balance of payments, healthier rural econo-*  
12          *mies, improved environmental quality, and abundant,*  
13          *reliable, and affordable energy for all citizens of the*  
14          *United States;*

15          (4) *the production of transportation fuels from*  
16          *renewable energy would help the United States meet*  
17          *rapidly growing domestic and global energy demands,*  
18          *reduce the dependence of the United States on energy*  
19          *imported from volatile regions of the world that are*  
20          *politically unstable, stabilize the cost and availability*  
21          *of energy, and safeguard the economy and security of*  
22          *the United States;*

23          (5) *increased energy production from domestic*  
24          *renewable resources would attract substantial new in-*  
25          *vestments in energy infrastructure, create economic*



1       *growth, develop new jobs for the citizens of the United*  
 2       *States, and increase the income for farm, ranch, and*  
 3       *forestry jobs in the rural regions of the United States;*

4               *(6) increased use of renewable energy is practical*  
 5       *and can be cost effective with the implementation of*  
 6       *supportive policies and proper incentives to stimulate*  
 7       *markets and infrastructure; and*

8               *(7) public policies aimed at enhancing renewable*  
 9       *energy production and accelerating technological im-*  
 10       *provements will further reduce energy costs over time*  
 11       *and increase market demand.*

12       *(b) SENSE OF CONGRESS.—It is the sense of Congress*  
 13       *that it is the goal of the United States that, not later than*  
 14       *January 1, 2025, the agricultural, forestry, and working*  
 15       *land of the United States should—*

16               *(1) provide from renewable resources not less*  
 17       *than 25 percent of the total energy consumed in the*  
 18       *United States; and*

19               *(2) continue to produce safe, abundant, and af-*  
 20       *fordable food, feed, and fiber.*

21       **SEC. 807. GEOTHERMAL ASSESSMENT, EXPLORATION IN-**  
 22               **FORMATION, AND PRIORITY ACTIVITIES.**

23       *(a) IN GENERAL.—Not later than January 1, 2012,*  
 24       *the Secretary of the Interior, acting through the Director*  
 25       *of the United States Geological Survey, shall—*

1           (1) *complete a comprehensive nationwide geo-*  
 2           *thermal resource assessment that examines the full*  
 3           *range of geothermal resources in the United States;*  
 4           *and*

5           (2) *submit to the the Committee on Natural Re-*  
 6           *sources of the House of Representatives and the Com-*  
 7           *mittee on Energy and Natural Resources of the Sen-*  
 8           *ate a report describing the results of the assessment.*

9           (b) *PERIODIC UPDATES.*—*At least once every 10 years,*  
 10          *the Secretary shall update the national assessment required*  
 11          *under this section to support public and private sector deci-*  
 12          *sionmaking.*

13          (c) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 14          *authorized to be appropriated to the Secretary of the Inte-*  
 15          *rior to carry out this section—*

16               (1) *\$15,000,000 for each of fiscal years 2008*  
 17               *through 2012; and*

18               (2) *such sums as are necessary for each of fiscal*  
 19               *years 2013 through 2022.*

20          ***Subtitle B—Prohibitions on Market***  
 21          ***Manipulation and False Infor-***  
 22          ***mation***

23          ***SEC. 811. PROHIBITION ON MARKET MANIPULATION.***

24               *It is unlawful for any person, directly or indirectly,*  
 25          *to use or employ, in connection with the purchase or sale*

1 *of crude oil gasoline or petroleum distillates at wholesale,*  
 2 *any manipulative or deceptive device or contrivance, in*  
 3 *contravention of such rules and regulations as the Federal*  
 4 *Trade Commission may prescribe as necessary or appro-*  
 5 *priate in the public interest or for the protection of United*  
 6 *States citizens.*

7 **SEC. 812. PROHIBITION ON FALSE INFORMATION.**

8 *It is unlawful for any person to report information*  
 9 *related to the wholesale price of crude oil gasoline or petro-*  
 10 *leum distillates to a Federal department or agency if—*

11 *(1) the person knew, or reasonably should have*  
 12 *known, the information to be false or misleading;*

13 *(2) the information was required by law to be re-*  
 14 *ported; and*

15 *(3) the person intended the false or misleading*  
 16 *data to affect data compiled by the department or*  
 17 *agency for statistical or analytical purposes with re-*  
 18 *spect to the market for crude oil, gasoline, or petro-*  
 19 *leum distillates.*

20 **SEC. 813. ENFORCEMENT BY THE FEDERAL TRADE COMMIS-**  
 21 **SION.**

22 *(a) ENFORCEMENT.—This subtitle shall be enforced by*  
 23 *the Federal Trade Commission in the same manner, by the*  
 24 *same means, and with the same jurisdiction as though all*  
 25 *applicable terms of the Federal Trade Commission Act (15*

1 *U.S.C. 41 et seq.) were incorporated into and made a part*  
 2 *of this subtitle.*

3 *(b) VIOLATION IS TREATED AS UNFAIR OR DECEPTIVE*  
 4 *ACT OR PRACTICE.—The violation of any provision of this*  
 5 *subtitle shall be treated as an unfair or deceptive act or*  
 6 *practice proscribed under a rule issued under section*  
 7 *18(a)(1)(B) of the Federal Trade Commission Act (15*  
 8 *U.S.C. 57a(a)(1)(B)).*

9 **SEC. 814. PENALTIES.**

10 *(a) CIVIL PENALTY.—In addition to any penalty ap-*  
 11 *plicable under the Federal Trade Commission Act (15*  
 12 *U.S.C. 41 et seq.), any supplier that violates section 811*  
 13 *or 812 shall be punishable by a civil penalty of not more*  
 14 *than \$1,000,000.*

15 *(b) METHOD.—The penalties provided by subsection*  
 16 *(a) shall be obtained in the same manner as civil penalties*  
 17 *imposed under section 5 of the Federal Trade Commission*  
 18 *Act (15 U.S.C. 45).*

19 *(c) MULTIPLE OFFENSES; MITIGATING FACTORS.—In*  
 20 *assessing the penalty provided by subsection (a)—*

21 *(1) each day of a continuing violation shall be*  
 22 *considered a separate violation; and*

23 *(2) the court shall take into consideration,*  
 24 *among other factors—*

25 *(A) the seriousness of the violation; and*

1                   (B) the efforts of the person committing the  
 2                   violation to remedy the harm caused by the vio-  
 3                   lation in a timely manner.

4 **SEC. 815. EFFECT ON OTHER LAWS.**

5           (a) *OTHER AUTHORITY OF THE COMMISSION.*—Noth-  
 6           ing in this subtitle limits or affects the authority of the Fed-  
 7           eral Trade Commission to bring an enforcement action or  
 8           take any other measure under the Federal Trade Commis-  
 9           sion Act (15 U.S.C. 41 et seq.) or any other provision of  
 10          law.

11          (b) *ANTITRUST LAW.*—Nothing in this subtitle shall be  
 12          construed to modify, impair, or supersede the operation of  
 13          any of the antitrust laws. For purposes of this subsection,  
 14          the term “antitrust laws” shall have the meaning given it  
 15          in subsection (a) of the first section of the Clayton Act (15  
 16          U.S.C. 12), except that it includes section 5 of the Federal  
 17          Trade Commission Act (15 U.S.C. 45) to the extent that  
 18          such section 5 applies to unfair methods of competition.

19          (c) *STATE LAW.*—Nothing in this subtitle preempts  
 20          any State law.

21                   **TITLE IX—INTERNATIONAL**  
 22                   **ENERGY PROGRAMS**

23 **SEC. 901. DEFINITIONS.**

24          *In this title:*

1           (1) *APPROPRIATE CONGRESSIONAL COMMIT-*  
 2           *TEES.*—*The term “appropriate congressional commit-*  
 3           *tees” means—*

4                     *(A) the Committee on Foreign Affairs and*  
 5                     *the Committee on Energy and Commerce of the*  
 6                     *House of Representatives; and*

7                     *(B) the Committee on Foreign Relations,*  
 8                     *the Committee on Energy and Natural Re-*  
 9                     *sources, the Committee on Environment and*  
 10                    *Public Works of the Senate, and the Committee*  
 11                    *on Commerce, Science, and Transportation.*

12           (2) *CLEAN AND EFFICIENT ENERGY TECH-*  
 13           *NOLOGY.*—*The term “clean and efficient energy tech-*  
 14           *nology” means an energy supply or end-use tech-*  
 15           *nology that, compared to a similar technology already*  
 16           *in widespread commercial use in a recipient country,*  
 17           *will—*

18                     *(A) reduce emissions of greenhouse gases; or*

19                     *(B)(i) increase efficiency of energy produc-*  
 20                     *tion; or*

21                     *(ii) decrease intensity of energy usage.*

22           (3) *GREENHOUSE GAS.*—*The term “greenhouse*  
 23           *gas” means—*

24                     *(A) carbon dioxide;*

25                     *(B) methane;*

- 1 (C) nitrous oxide;
- 2 (D) hydrofluorocarbons;
- 3 (E) perfluorocarbons; or
- 4 (F) sulfur hexafluoride.

5 ***Subtitle A—Assistance to Promote***  
 6 ***Clean and Efficient Energy***  
 7 ***Technologies in Foreign Coun-***  
 8 ***tries***

9 ***SEC. 911. UNITED STATES ASSISTANCE FOR DEVELOPING***  
 10 ***COUNTRIES.***

11 (a) ASSISTANCE AUTHORIZED.—*The Administrator of*  
 12 *the United States Agency for International Development*  
 13 *shall support policies and programs in developing countries*  
 14 *that promote clean and efficient energy technologies—*

15 (1) *to produce the necessary market conditions*  
 16 *for the private sector delivery of energy and environ-*  
 17 *mental management services;*

18 (2) *to create an environment that is conducive to*  
 19 *accepting clean and efficient energy technologies that*  
 20 *support the overall purpose of reducing greenhouse*  
 21 *gas emissions, including—*

22 (A) *improving policy, legal, and regulatory*  
 23 *frameworks;*

1                   (B) increasing institutional abilities to pro-  
 2                   vide energy and environmental management  
 3                   services; and

4                   (C) increasing public awareness and par-  
 5                   ticipation in the decision-making of delivering  
 6                   energy and environmental management services;  
 7                   and

8                   (3) to promote the use of American-made clean  
 9                   and efficient energy technologies, products, and en-  
 10                  ergy and environmental management services.

11           (b) *REPORT.*—*The Administrator of the United States*  
 12           *Agency for International Development shall submit to the*  
 13           *appropriate congressional committees an annual report on*  
 14           *the implementation of this section for each of the fiscal*  
 15           *years 2008 through 2012.*

16           (c) *AUTHORIZATION OF APPROPRIATIONS.*—*To carry*  
 17           *out this section, there are authorized to be appropriated to*  
 18           *the Administrator of the United States Agency for Inter-*  
 19           *national Development \$200,000,000 for each of the fiscal*  
 20           *years 2008 through 2012.*

21   **SEC. 912. UNITED STATES EXPORTS AND OUTREACH PRO-**  
 22                                   **GRAMS FOR INDIA, CHINA, AND OTHER COUN-**  
 23                                   **TRIES.**

24           (a) *ASSISTANCE AUTHORIZED.*—*The Secretary of*  
 25           *Commerce shall direct the United States and Foreign Com-*



1 *mercial Service to expand or create a corps of the Foreign*  
 2 *Commercial Service officers to promote United States ex-*  
 3 *ports in clean and efficient energy technologies and build*  
 4 *the capacity of government officials in India, China, and*  
 5 *any other country the Secretary of Commerce determines*  
 6 *appropriate, to become more familiar with the available*  
 7 *technologies—*

8           (1) *by assigning or training Foreign Commercial*  
 9       *Service attachés, who have expertise in clean and effi-*  
 10       *cient energy technologies from the United States, to*  
 11       *embark on business development and outreach efforts*  
 12       *to such countries; and*

13           (2) *by deploying the attachés described in para-*  
 14       *graph (1) to educate provincial, state, and local gov-*  
 15       *ernment officials in such countries on the variety of*  
 16       *United States-based technologies in clean and efficient*  
 17       *energy technologies for the purposes of promoting*  
 18       *United States exports and reducing global greenhouse*  
 19       *gas emissions.*

20       (b) *REPORT.—The Secretary of Commerce shall submit*  
 21 *to the appropriate congressional committees an annual re-*  
 22 *port on the implementation of this section for each of the*  
 23 *fiscal years 2008 through 2012.*

24       (c) *AUTHORIZATION OF APPROPRIATIONS.—To carry*  
 25 *out this section, there are authorized to be appropriated to*

1 *the Secretary of Commerce such sums as may be necessary*  
2 *for each of the fiscal years 2008 through 2012.*

3 **SEC. 913. UNITED STATES TRADE MISSIONS TO ENCOURAGE**  
4 **PRIVATE SECTOR TRADE AND INVESTMENT.**

5 (a) *ASSISTANCE AUTHORIZED.*—*The Secretary of*  
6 *Commerce shall direct the International Trade Administra-*  
7 *tion to expand or create trade missions to and from the*  
8 *United States to encourage private sector trade and invest-*  
9 *ment in clean and efficient energy technologies—*

10 (1) *by organizing and facilitating trade missions*  
11 *to foreign countries and by matching United States*  
12 *private sector companies with opportunities in for-*  
13 *foreign markets so that clean and efficient energy tech-*  
14 *nologies can help to combat increases in global green-*  
15 *house gas emissions; and*

16 (2) *by creating reverse trade missions in which*  
17 *the Department of Commerce facilitates the meeting of*  
18 *foreign private and public sector organizations with*  
19 *private sector companies in the United States for the*  
20 *purpose of showcasing clean and efficient energy tech-*  
21 *nologies in use or in development that could be ex-*  
22 *ported to other countries.*

23 (b) *REPORT.*—*The Secretary of Commerce shall submit*  
24 *to the appropriate congressional committees an annual re-*

1 *port on the implementation of this section for each of the*  
 2 *fiscal years 2008 through 2012.*

3 (c) *AUTHORIZATION OF APPROPRIATIONS.—To carry*  
 4 *out this section, there are authorized to be appropriated to*  
 5 *the Secretary of Commerce such sums as may be necessary*  
 6 *for each of the fiscal years 2008 through 2012.*

7 **SEC. 914. ACTIONS BY OVERSEAS PRIVATE INVESTMENT**  
 8 **CORPORATION.**

9 (a) *SENSE OF CONGRESS.—It is the sense of Congress*  
 10 *that the Overseas Private Investment Corporation should*  
 11 *promote greater investment in clean and efficient energy*  
 12 *technologies by—*

13 (1) *proactively reaching out to United States*  
 14 *companies that are interested in investing in clean*  
 15 *and efficient energy technologies in countries that are*  
 16 *significant contributors to global greenhouse gas emis-*  
 17 *sions;*

18 (2) *giving preferential treatment to the evalua-*  
 19 *tion and awarding of projects that involve the invest-*  
 20 *ment or utilization of clean and efficient energy tech-*  
 21 *nologies; and*

22 (3) *providing greater flexibility in supporting*  
 23 *projects that involve the investment or utilization of*  
 24 *clean and efficient energy technologies, including fi-*  
 25 *nancing, insurance, and other assistance.*

1       (b) *REPORT.*—*The Overseas Private Investment Cor-*  
 2 *poration shall include in its annual report required under*  
 3 *section 240A of the Foreign Assistance Act of 1961 (22*  
 4 *U.S.C. 2200a)—*

5           (1) *a description of the activities carried out to*  
 6 *implement this section; or*

7           (2) *if the Corporation did not carry out any ac-*  
 8 *tivities to implement this section, an explanation of*  
 9 *the reasons therefor.*

10 **SEC. 915. ACTIONS BY UNITED STATES TRADE AND DEVEL-**  
 11 **OPMENT AGENCY.**

12       (a) *ASSISTANCE AUTHORIZED.*—*The Director of the*  
 13 *Trade and Development Agency shall establish or support*  
 14 *policies that—*

15           (1) *proactively seek opportunities to fund*  
 16 *projects that involve the utilization of clean and effi-*  
 17 *cient energy technologies, including in trade capacity*  
 18 *building and capital investment projects;*

19           (2) *where appropriate, advance the utilization of*  
 20 *clean and efficient energy technologies, particularly to*  
 21 *countries that have the potential for significant reduc-*  
 22 *tion in greenhouse gas emissions; and*

23           (3) *recruit and retain individuals with appro-*  
 24 *priate expertise or experience in clean, renewable, and*  
 25 *efficient energy technologies to identify and evaluate*

1        *opportunities for projects that involve clean and effi-*  
 2        *cient energy technologies and services.*

3        *(b) REPORT.—The President shall include in the an-*  
 4        *nual report on the activities of the Trade and Development*  
 5        *Agency required under section 661(d) of the Foreign Assist-*  
 6        *ance Act of 1961 (22 U.S.C. 2421(d)) a description of the*  
 7        *activities carried out to implement this section.*

8        **SEC. 916. DEPLOYMENT OF INTERNATIONAL CLEAN AND EF-**  
 9                                **FICIENT ENERGY TECHNOLOGIES AND IN-**  
 10                              **VESTMENT IN GLOBAL ENERGY MARKETS.**

11        *(a) TASK FORCE.—*

12                *(1) ESTABLISHMENT.—Not later than 90 days*  
 13        *after the date of the enactment of this Act, the Presi-*  
 14        *dent shall establish a Task Force on International Co-*  
 15        *operation for Clean and Efficient Energy Tech-*  
 16        *nologies (in this section referred to as the “Task*  
 17        *Force”).*

18                *(2) COMPOSITION.—The Task Force shall be com-*  
 19        *posed of representatives, appointed by the head of the*  
 20        *respective Federal department or agency, of—*

21                        *(A) the Council on Environmental Quality;*

22                        *(B) the Department of Energy;*

23                        *(C) the Department of Commerce;*

24                        *(D) the Department of the Treasury;*

25                        *(E) the Department of State;*

1                   (F) the Environmental Protection Agency;

2                   (G) the United States Agency for Inter-  
3                   national Development;

4                   (H) the Export-Import Bank of the United  
5                   States;

6                   (I) the Overseas Private Investment Cor-  
7                   poration:

8                   (J) the Trade and Development Agency;

9                   (K) the Small Business Administration;

10                  (L) the Office of the United States Trade  
11                  Representative; and

12                  (M) other Federal departments and agen-  
13                  cies, as determined by the President.

14                  (3) CHAIRPERSON.—The President shall des-  
15                  ignate a Chairperson or Co-Chairpersons of the Task  
16                  Force.

17                  (4) DUTIES.—The Task Force—

18                         (A) shall develop and assist in the imple-  
19                         mentation of the strategy required under sub-  
20                         section (c); and

21                         (B)(i) shall analyze technology, policy, and  
22                         market opportunities for the development, dem-  
23                         onstration, and deployment of clean and efficient  
24                         energy technologies on an international basis;  
25                         and

1           (ii) shall examine relevant trade, tax, fi-  
 2           nance, international, and other policy issues to  
 3           assess which policies, in the United States and  
 4           in developing countries, would help open markets  
 5           and improve the export of clean and efficient en-  
 6           ergy technologies from the United States.

7           (5) *TERMINATION.*—The Task Force, including  
 8           any working group established by the Task Force pur-  
 9           suant to subsection (b), shall terminate 12 years after  
 10          the date of the enactment of this Act.

11          (b) *WORKING GROUPS.*—

12           (1) *ESTABLISHMENT.*—The Task Force—

13                   (A) shall establish an Interagency Working  
 14                   Group on the Export of Clean and Efficient En-  
 15                   ergy Technologies (in this section referred to as  
 16                   the “Interagency Working Group”); and

17                   (B) may establish other working groups as  
 18                   may be necessary to carry out this section.

19           (2) *COMPOSITION.*—The Interagency Working  
 20          Group shall be composed of—

21                   (A) the Secretary of Energy, the Secretary  
 22                   of Commerce, and the Secretary of State, who  
 23                   shall serve as Co-Chairpersons of the Interagency  
 24                   Working Group; and

1                   (B) other members, as determined by the  
2                   Chairperson or Co-Chairpersons of the Task  
3                   Force.

4                   (3) DUTIES.—The Interagency Working Group  
5                   shall coordinate the resources and relevant programs  
6                   of the Department of Energy, the Department of Com-  
7                   merce, the Department of State, and other relevant  
8                   Federal departments and agencies to support the ex-  
9                   port of clean and efficient energy technologies devel-  
10                  oped or demonstrated in the United States to other  
11                  countries and the deployment of such clean and effi-  
12                  cient energy technologies in such other countries.

13                  (4) INTERAGENCY CENTER.—The Interagency  
14                  Working Group—

15                       (A) shall establish an Interagency Center on  
16                       the Export of Clean and Efficient Energy Tech-  
17                       nologies (in this section referred to as the “Inter-  
18                       agency Center”) to assist the Interagency Work-  
19                       ing Group in carrying out its duties required  
20                       under paragraph (3); and

21                       (B) shall locate the Interagency Center at a  
22                       site agreed upon by the Co-Chairpersons of the  
23                       Interagency Working Group, with the approval  
24                       of Chairperson or Co-Chairpersons of the Task  
25                       Force.



1       (c) *STRATEGY*.—

2           (1) *IN GENERAL*.—Not later than 1 year after  
3       the date of the enactment of this Act, the Task Force  
4       shall develop and submit to the President and the ap-  
5       propriate congressional committees a strategy to—

6           (A) support the development and implemen-  
7       tation of programs, policies, and initiatives in  
8       developing countries to promote the adoption  
9       and deployment of clean and efficient energy  
10      technologies, with an emphasis on those devel-  
11      oping countries that are expected to experience  
12      the most significant growth in energy production  
13      and use over the next 20 years;

14          (B) open and expand clean and efficient en-  
15      ergy technology markets and facilitate the export  
16      of clean and efficient energy technologies to de-  
17      veloping countries, in a manner consistent with  
18      United States obligations as member of the  
19      World Trade Organization;

20          (C) integrate into the foreign policy objec-  
21      tives of the United States the promotion of—

22           (i) the deployment of clean and effi-  
23      cient energy technologies and the reduction  
24      of greenhouse gas emissions in developing  
25      countries; and

1                   (ii) the export of clean and efficient en-  
2                   ergy technologies; and

3                   (D) develop financial mechanisms and in-  
4                   struments, including securities that mitigate the  
5                   political and foreign exchange risks of uses that  
6                   are consistent with the foreign policy objectives  
7                   of the United States by combining the private  
8                   sector market and government enhancements,  
9                   that—

10                   (i) are cost-effective; and

11                   (ii) facilitate private capital invest-  
12                   ment in clean and efficient energy tech-  
13                   nology projects in developing countries.

14                   (2) *UPDATES.*—Not later than 3 years after the  
15                   date of submission of the strategy under paragraph  
16                   (1), and every 3 years thereafter, the Task Force shall  
17                   update the strategy in accordance with the require-  
18                   ments of paragraph (1).

19                   (d) *REPORT.*—

20                   (1) *IN GENERAL.*—Not later than 3 years after  
21                   the date of submission of the strategy under subsection  
22                   (c)(1), and every 3 years thereafter, the President  
23                   shall transmit to the appropriate congressional com-  
24                   mittees a report on the implementation of this section  
25                   for the prior 3-year period.

1           (2) *MATTERS TO BE INCLUDED.*—*The report re-*  
2           *quired under paragraph (1) shall include the fol-*  
3           *lowing:*

4                   (A) *The update of the strategy required*  
5                   *under subsection (c)(2) and a description of the*  
6                   *actions taken by the Task Force to assist in the*  
7                   *implementation of the strategy.*

8                   (B) *A description of actions taken by the*  
9                   *Task Force to carry out the duties required*  
10                  *under subsection (a)(4)(B).*

11                  (C) *A description of assistance provided*  
12                  *under this section.*

13                  (D) *The results of programs, projects, and*  
14                  *activities carried out under this section.*

15                  (E) *A description of priorities for pro-*  
16                  *moting the diffusion and adoption of clean and*  
17                  *efficient energy technologies and strategies in de-*  
18                  *veloping countries, taking into account economic*  
19                  *and security interests of the United States and*  
20                  *opportunities for the export of technology of the*  
21                  *United States.*

22                  (F) *Recommendations to the heads of ap-*  
23                  *propriate Federal departments and agencies on*  
24                  *methods to streamline Federal programs and*  
25                  *policies to improve the role of such Federal de-*

partments and agencies in the development, demonstration, and deployment of clean and efficient energy technologies on an international basis.

(G) Strategies to integrate representatives of the private sector and other interested groups on the export and deployment of clean and efficient energy technologies.

(H) A description of programs to disseminate information to the private sector and the public on clean and efficient energy technologies and opportunities to transfer such clean and efficient energy technologies.

(e) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated to carry out this section \$5,000,000 for each of fiscal years 2008 through 2020.

**SEC. 917. UNITED STATES-ISRAEL ENERGY COOPERATION.**

(a) *FINDINGS.*—Congress finds that—

(1) it is in the highest national security interests of the United States to develop renewable energy sources;

(2) the State of Israel is a steadfast ally of the United States;

(3) the special relationship between the United States and Israel is manifested in a variety of cooper-

1        *ative scientific research and development programs,*  
 2        *such as—*

3                *(A) the United States-Israel Binational*  
 4                *Science Foundation; and*

5                *(B) the United States-Israel Binational In-*  
 6                *dustrial Research and Development Foundation;*

7                *(4) those programs have made possible many sci-*  
 8                *entific, technological, and commercial breakthroughs*  
 9                *in the fields of life sciences, medicine, bioengineering,*  
 10               *agriculture, biotechnology, communications, and oth-*  
 11               *ers;*

12               *(5) on February 1, 1996, the Secretary of En-*  
 13               *ergy (referred to in this section as the “Secretary”)*  
 14               *and the Israeli Minister of Energy and Infrastructure*  
 15               *signed an agreement to establish a framework for col-*  
 16               *laboration between the United States and Israel in*  
 17               *energy research and development activities;*

18               *(6) Israeli scientists and engineers are at the*  
 19               *forefront of research and development in the field of*  
 20               *renewable energy sources; and*

21               *(7) enhanced cooperation between the United*  
 22               *States and Israel for the purpose of research and de-*  
 23               *velopment of renewable energy sources would be in the*  
 24               *national interests of both countries.*

25               *(b) GRANT PROGRAM.—*

1           (1) *ESTABLISHMENT.*—*In implementing the*  
 2           *agreement entitled the “Agreement between the De-*  
 3           *partment of Energy of the United States of America*  
 4           *and the Ministry of Energy and Infrastructure of*  
 5           *Israel Concerning Energy Cooperation”, dated Feb-*  
 6           *ruary 1, 1996, the Secretary shall establish a grant*  
 7           *program in accordance with the requirements of sec-*  
 8           *tions 988 and 989 of the Energy Policy Act of 2005*  
 9           *(42 U.S.C. 16352, 16353) to support research, devel-*  
 10          *opment, and commercialization of renewable energy*  
 11          *or energy efficiency.*

12          (2) *TYPES OF ENERGY.*—*In carrying out para-*  
 13          *graph (1), the Secretary may make grants to*  
 14          *promote—*

- 15                   (A) *solar energy;*
- 16                   (B) *biomass energy;*
- 17                   (C) *energy efficiency;*
- 18                   (D) *wind energy;*
- 19                   (E) *geothermal energy;*
- 20                   (F) *wave and tidal energy; and*
- 21                   (G) *advanced battery technology.*

22          (3) *ELIGIBLE APPLICANTS.*—*An applicant shall*  
 23          *be eligible to receive a grant under this subsection if*  
 24          *the project of the applicant—*

1           (A) addresses a requirement in the area of  
 2           improved energy efficiency or renewable energy  
 3           sources, as determined by the Secretary; and

4           (B) is a joint venture between—

5                 (i)(I) a for-profit business entity, aca-  
 6                 demic institution, National Laboratory (as  
 7                 defined in section 2 of the Energy Policy  
 8                 Act of 2005 (42 U.S.C. 15801)), or non-  
 9                 profit entity in the United States; and

10                (II) a for-profit business entity, aca-  
 11                demic institution, or nonprofit entity in  
 12                Israel; or

13                (ii)(I) the Federal Government; and

14                (II) the Government of Israel.

15           (4) APPLICATIONS.—To be eligible to receive a  
 16           grant under this subsection, an applicant shall sub-  
 17           mit to the Secretary an application for the grant in  
 18           accordance with procedures established by the Sec-  
 19           retary, in consultation with the advisory board estab-  
 20           lished under paragraph (5).

21           (5) ADVISORY BOARD.—

22                (A) ESTABLISHMENT.—The Secretary shall  
 23                establish an advisory board—

1                   (i) to monitor the method by which  
 2                   grants are awarded under this subsection;  
 3                   and

4                   (ii) to provide to the Secretary peri-  
 5                   odic performance reviews of actions taken to  
 6                   carry out this subsection.

7                   (B) COMPOSITION.—The advisory board es-  
 8                   tablished under subparagraph (A) shall be com-  
 9                   posed of 3 members, to be appointed by the Sec-  
 10                  retary, of whom—

11                  (i) 1 shall be a representative of the  
 12                  Federal Government;

13                  (ii) 1 shall be selected from a list of  
 14                  nominees provided by the United States-  
 15                  Israel Binational Science Foundation; and

16                  (iii) 1 shall be selected from a list of  
 17                  nominees provided by the United States-  
 18                  Israel Binational Industrial Research and  
 19                  Development Foundation.

20                  (6) CONTRIBUTED FUNDS.—Notwithstanding sec-  
 21                  tion 3302 of title 31, United States Code, the Sec-  
 22                  retary may accept, retain, and use funds contributed  
 23                  by any person, government entity, or organization for  
 24                  purposes of carrying out this subsection—

25                  (A) without further appropriation; and



1                   (B) without fiscal year limitation.

2                   (7) *REPORT.*—Not later than 180 days after the  
3                   date of completion of a project for which a grant is  
4                   provided under this subsection, the grant recipient  
5                   shall submit to the Secretary a report that contains—

6                   (A) a description of the method by which  
7                   the recipient used the grant funds; and

8                   (B) an evaluation of the level of success of  
9                   each project funded by the grant.

10                  (8) *CLASSIFICATION.*—Grants shall be awarded  
11                  under this subsection only for projects that are con-  
12                  sidered to be unclassified by both the United States  
13                  and Israel.

14                  (c) *TERMINATION.*—The grant program and the advi-  
15                  sory committee established under this section terminate on  
16                  the date that is 7 years after the date of enactment of this  
17                  Act.

18                  (d) *AUTHORIZATION OF APPROPRIATIONS.*—The Sec-  
19                  retary shall use amounts authorized to be appropriated  
20                  under section 931 of the Energy Policy Act of 2005 (42  
21                  U.S.C. 16231) to carry out this section.

22                  ***Subtitle B—International Clean***  
23                  ***Energy Foundation***

24                  ***SEC. 921. DEFINITIONS.***

25                  *In this subtitle:*

8                   (3) *FOUNDATION.*—The term “Foundation”  
9                   means the International Clean Energy Foundation  
10                  established by section 922(a).

13      (a) *ESTABLISHMENT.*—

21 (2) *BOARD OF DIRECTORS.*—*The Foundation*  
22 *shall be governed by a Board of Directors in accord-*  
23 *ance with subsection (c).*

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1        *tion set forth in this subsection, to create an entity*  
 2        *that serves the long-term foreign policy and energy se-*  
 3        *curity goals of reducing global greenhouse gas emis-*  
 4        *sions.*

5        *(b) CHIEF EXECUTIVE OFFICER.—*

6                *(1) IN GENERAL.—There shall be in the Founda-*  
 7        *tion a Chief Executive Officer who shall be responsible*  
 8        *for the management of the Foundation.*

9                *(2) APPOINTMENT.—The Chief Executive Officer*  
 10        *shall be appointed by the Board, with the advice and*  
 11        *consent of the Senate, and shall be a recognized leader*  
 12        *in clean and efficient energy technologies and climate*  
 13        *change and shall have experience in energy security,*  
 14        *business, or foreign policy, chosen on the basis of a*  
 15        *rigorous search.*

16                *(3) RELATIONSHIP TO BOARD.—The Chief Exec-*  
 17        *utive Officer shall report to, and be under the direct*  
 18        *authority of, the Board.*

19                *(4) COMPENSATION AND RANK.—*

20                *(A) IN GENERAL.—The Chief Executive Of-*  
 21        *ficer shall be compensated at the rate provided*  
 22        *for level III of the Executive Schedule under sec-*  
 23        *tion 5314 of title 5, United States Code.*

1                   (B) *AMENDMENT.*—Section 5314 of title 5,  
 2                   *United States Code*, is amended by adding at the  
 3                   end the following:

4                   “Chief Executive Officer, International Clean Energy  
 5                   Foundation.”.

6                   (C) *AUTHORITIES AND DUTIES.*—The Chief  
 7                   Executive Officer shall be responsible for the  
 8                   management of the Foundation and shall exer-  
 9                   cise the powers and discharge the duties of the  
 10                  Foundation.

11                  (D) *AUTHORITY TO APPOINT OFFICERS.*—In  
 12                  consultation and with approval of the Board, the  
 13                  Chief Executive Officer shall appoint all officers  
 14                  of the Foundation.

15                  (c) *BOARD OF DIRECTORS.*—

16                  (1) *ESTABLISHMENT.*—There shall be in the  
 17                  Foundation a Board of Directors.

18                  (2) *DUTIES.*—The Board shall perform the func-  
 19                  tions specified to be carried out by the Board in this  
 20                  subtitle and may prescribe, amend, and repeal by-  
 21                  laws, rules, regulations, and procedures governing the  
 22                  manner in which the business of the Foundation may  
 23                  be conducted and in which the powers granted to it  
 24                  by law may be exercised.

25                  (3) *MEMBERSHIP.*—The Board shall consist of—

1           (A) *the Secretary of State (or the Sec-*  
2           *retary's designee), the Secretary of Energy (or*  
3           *the Secretary's designee), and the Administrator*  
4           *of the United States Agency for International*  
5           *Development (or the Administrator's designee);*  
6           *and*

7           (B) *four other individuals with relevant ex-*  
8           *perience in matters relating to energy security*  
9           *(such as individuals who represent institutions*  
10           *of energy policy, business organizations, foreign*  
11           *policy organizations, or other relevant organiza-*  
12           *tions) who shall be appointed by the President,*  
13           *by and with the advice and consent of the Sen-*  
14           *ate, of whom—*

15               (i) *one individual shall be appointed*  
16               *from among a list of individuals submitted*  
17               *by the majority leader of the House of Rep-*  
18               *resentatives;*

19               (ii) *one individual shall be appointed*  
20               *from among a list of individuals submitted*  
21               *by the minority leader of the House of Rep-*  
22               *resentatives;*

23               (iii) *one individual shall be appointed*  
24               *from among a list of individuals submitted*  
25               *by the majority leader of the Senate; and*

1                   (iv) one individual shall be appointed  
 2                   from among a list of individuals submitted  
 3                   by the minority leader of the Senate.

4                   (4) CHIEF EXECUTIVE OFFICER.—The Chief Ex-  
 5                   ecutive Officer of the Foundation shall serve as a non-  
 6                   voting, *ex officio* member of the Board.

7                   (5) TERMS.—

8                   (A) OFFICERS OF THE FEDERAL GOVERN-  
 9                   MENT.—Each member of the Board described in  
 10                  paragraph (3)(A) shall serve for a term that is  
 11                  concurrent with the term of service of the indi-  
 12                  vidual's position as an officer within the other  
 13                  Federal department or agency.

14                  (B) OTHER MEMBERS.—Each member of  
 15                  the Board described in paragraph (3)(B) shall be  
 16                  appointed for a term of 3 years and may be re-  
 17                  appointed for a term of an additional 3 years.

18                  (C) VACANCIES.—A vacancy in the Board  
 19                  shall be filled in the manner in which the origi-  
 20                  nal appointment was made.

21                  (D) ACTING MEMBERS.—A vacancy in the  
 22                  Board may be filled with an appointment of an  
 23                  acting member by the Chairperson of the Board  
 24                  for up to 1 year while a nominee is named and

1           *awaits confirmation in accordance with para-*  
 2           *graph (3)(B).*

3           (6) *CHAIRPERSON.—There shall be a Chair-*  
 4           *person of the Board. The Secretary of State (or the*  
 5           *Secretary’s designee) shall serve as the Chairperson.*

6           (7) *QUORUM.—A majority of the members of the*  
 7           *Board described in paragraph (3) shall constitute a*  
 8           *quorum, which, except with respect to a meeting of*  
 9           *the Board during the 135-day period beginning on*  
 10          *the date of the enactment of this Act, shall include at*  
 11          *least 1 member of the Board described in paragraph*  
 12          *(3)(B).*

13          (8) *MEETINGS.—The Board shall meet at the call*  
 14          *of the Chairperson, who shall call a meeting no less*  
 15          *than once a year.*

16          (9) *COMPENSATION.—*

17                 (A) *OFFICERS OF THE FEDERAL GOVERN-*  
 18                 *MENT.—*

19                     (i) *IN GENERAL.—A member of the*  
 20                     *Board described in paragraph (3)(A) may*  
 21                     *not receive additional pay, allowances, or*  
 22                     *benefits by reason of the member’s service on*  
 23                     *the Board.*

24                     (ii) *TRAVEL EXPENSES.—Each such*  
 25                     *member of the Board shall receive travel ex-*

1            *penses, including per diem in lieu of sub-*  
2            *sistence, in accordance with applicable pro-*  
3            *visions under subchapter I of chapter 57 of*  
4            *title 5, United States Code.*

5            *(B) OTHER MEMBERS.—*

6                    *(i) IN GENERAL.—Except as provided*  
7            *in clause (ii), a member of the Board de-*  
8            *scribed in paragraph (3)(B)—*

9                    *(I) shall be paid compensation out*  
10           *of funds made available for the pur-*  
11           *poses of this subtitle at the daily equiv-*  
12           *alent of the highest rate payable under*  
13           *section 5332 of title 5, United States*  
14           *Code, for each day (including travel*  
15           *time) during which the member is en-*  
16           *gaged in the actual performance of du-*  
17           *ties as a member of the Board; and*

18                    *(II) while away from the mem-*  
19           *ber's home or regular place of business*  
20           *on necessary travel in the actual per-*  
21           *formance of duties as a member of the*  
22           *Board, shall be paid per diem, travel,*  
23           *and transportation expenses in the*  
24           *same manner as is provided under sub-*



1                   *chapter I of chapter 57 of title 5,*  
2                   *United States Code.*

3                   (ii) *LIMITATION.—A member of the*  
4                   *Board may not be paid compensation under*  
5                   *clause (i)(II) for more than 90 days in any*  
6                   *calendar year.*

7   **SEC. 923. DUTIES OF FOUNDATION.**

8       *The Foundation shall—*

9           (1) *use the funds authorized by this subtitle to*  
10          *make grants to promote projects outside of the United*  
11          *States that serve as models of how to significantly re-*  
12          *duce the emissions of global greenhouse gases through*  
13          *clean and efficient energy technologies, processes, and*  
14          *services;*

15          (2) *seek contributions from foreign governments,*  
16          *especially those rich in energy resources such as mem-*  
17          *ber countries of the Organization of the Petroleum*  
18          *Exporting Countries, and private organizations to*  
19          *supplement funds made available under this subtitle;*

20          (3) *harness global expertise through collaborative*  
21          *partnerships with foreign governments and domestic*  
22          *and foreign private actors, including nongovern-*  
23          *mental organizations and private sector companies,*  
24          *by leveraging public and private capital, technology,*  
25          *expertise, and services towards innovative models that*

1       *can be instituted to reduce global greenhouse gas*  
 2       *emissions;*

3           *(4) create a repository of information on best*  
 4       *practices and lessons learned on the utilization and*  
 5       *implementation of clean and efficient energy tech-*  
 6       *nologies and processes to be used for future initiatives*  
 7       *to tackle the climate change crisis;*

8           *(5) be committed to minimizing administrative*  
 9       *costs and to maximizing the availability of funds for*  
 10       *grants under this subtitle; and*

11           *(6) promote the use of American-made clean and*  
 12       *efficient energy technologies, processes, and services by*  
 13       *giving preference to entities incorporated in the*  
 14       *United States and whose technology will be substan-*  
 15       *tially manufactured in the United States.*

16   **SEC. 924. ANNUAL REPORT.**

17       *(a) REPORT REQUIRED.—Not later than March 31,*  
 18       *2008, and each March 31 thereafter, the Foundation shall*  
 19       *submit to the appropriate congressional committees a report*  
 20       *on the implementation of this subtitle during the prior fis-*  
 21       *cal year.*

22       *(b) CONTENTS.—The report required by subsection (a)*  
 23       *shall include—*

24           *(1) the total financial resources available to the*  
 25       *Foundation during the year, including appropriated*

1     *funds, the value and source of any gifts or donations*  
2     *accepted pursuant to section 925(a)(6), and any other*  
3     *resources;*

4             *(2) a description of the Board's policy priorities*  
5     *for the year and the basis upon which competitive*  
6     *grant proposals were solicited and awarded to non-*  
7     *governmental institutions and other organizations;*

8             *(3) a list of grants made to nongovernmental in-*  
9     *stitutions and other organizations that includes the*  
10    *identity of the institutional recipient, the dollar*  
11    *amount, and the results of the program; and*

12            *(4) the total administrative and operating ex-*  
13    *penses of the Foundation for the year, as well as spe-*  
14    *cific information on—*

15                *(A) the number of Foundation employees*  
16                *and the cost of compensation for Board members,*  
17                *Foundation employees, and personal service con-*  
18                *tractors;*

19                *(B) costs associated with securing the use of*  
20                *real property for carrying out the functions of*  
21                *the Foundation;*

22                *(C) total travel expenses incurred by Board*  
23                *members and Foundation employees in connec-*  
24                *tion with Foundation activities; and*

25                *(D) total representational expenses.*

1 **SEC. 925. POWERS OF THE FOUNDATION; RELATED PROVI-**  
2 **SIONS.**

3 (a) *POWERS.—The Foundation—*

4 (1) *shall have perpetual succession unless dis-*  
5 *solved by a law enacted after the date of the enact-*  
6 *ment of this Act;*

7 (2) *may adopt, alter, and use a seal, which shall*  
8 *be judicially noticed;*

9 (3) *may make and perform such contracts,*  
10 *grants, and other agreements with any person or gov-*  
11 *ernment however designated and wherever situated, as*  
12 *may be necessary for carrying out the functions of the*  
13 *Foundation;*

14 (4) *may determine and prescribe the manner in*  
15 *which its obligations shall be incurred and its ex-*  
16 *penses allowed and paid, including expenses for rep-*  
17 *resentation;*

18 (5) *may lease, purchase, or otherwise acquire,*  
19 *improve, and use such real property wherever situ-*  
20 *ated, as may be necessary for carrying out the func-*  
21 *tions of the Foundation;*

22 (6) *may accept money, funds, services, or prop-*  
23 *erty (real, personal, or mixed), tangible or intangible,*  
24 *made available by gift, bequest grant, or otherwise for*  
25 *the purpose of carrying out the provisions of this title*  
26 *from domestic or foreign private individuals, char-*

1        *ities, nongovernmental organizations, corporations, or*  
 2        *governments;*

3            *(7) may use the United States mails in the same*  
 4        *manner and on the same conditions as the executive*  
 5        *departments;*

6            *(8) may contract with individuals for personal*  
 7        *services, who shall not be considered Federal employ-*  
 8        *ees for any provision of law administered by the Of-*  
 9        *fice of Personnel Management;*

10          *(9) may hire or obtain passenger motor vehicles;*  
 11        *and*

12          *(10) shall have such other powers as may be nec-*  
 13        *essary and incident to carrying out this subtitle.*

14        *(b) PRINCIPAL OFFICE.—The Foundation shall main-*  
 15        *tain its principal office in the metropolitan area of Wash-*  
 16        *ington, District of Columbia.*

17        *(c) APPLICABILITY OF GOVERNMENT CORPORATION*  
 18        *CONTROL ACT.—*

19            *(1) IN GENERAL.—The Foundation shall be sub-*  
 20        *ject to chapter 91 of subtitle VI of title 31, United*  
 21        *States Code, except that the Foundation shall not be*  
 22        *authorized to issue obligations or offer obligations to*  
 23        *the public.*

1           (2) *CONFORMING AMENDMENT.*—Section 9101(3)  
 2           of title 31, United States Code, is amended by adding  
 3           at the end the following:

4                     “(R) *the International Clean Energy Foun-*  
 5                     *dation.*”.

6           (d) *INSPECTOR GENERAL.*—

7                     (1) *IN GENERAL.*—The Inspector General of the  
 8           Department of State shall serve as Inspector General  
 9           of the Foundation, and, in acting in such capacity,  
 10          may conduct reviews, investigations, and inspections  
 11          of all aspects of the operations and activities of the  
 12          Foundation.

13                    (2) *AUTHORITY OF THE BOARD.*—In carrying  
 14          out the responsibilities under this subsection, the In-  
 15          spector General shall report to and be under the gen-  
 16          eral supervision of the Board.

17                    (3) *REIMBURSEMENT AND AUTHORIZATION OF*  
 18          *SERVICES.*—

19                           (A) *REIMBURSEMENT.*—The Foundation  
 20          shall reimburse the Department of State for all  
 21          expenses incurred by the Inspector General in  
 22          connection with the Inspector General’s respon-  
 23          sibilities under this subsection.

24                           (B) *AUTHORIZATION FOR SERVICES.*—Of  
 25          the amount authorized to be appropriated under

1           *section 927(a) for a fiscal year, up to \$500,000*  
 2           *is authorized to be made available to the Inspec-*  
 3           *tor General of the Department of State to con-*  
 4           *duct reviews, investigations, and inspections of*  
 5           *operations and activities of the Foundation.*

6 **SEC. 926. GENERAL PERSONNEL AUTHORITIES.**

7           *(a) DETAIL OF PERSONNEL.—Upon request of the*  
 8           *Chief Executive Officer, the head of an agency may detail*  
 9           *any employee of such agency to the Foundation on a reim-*  
 10           *bursable basis. Any employee so detailed remains, for the*  
 11           *purpose of preserving such employee's allowances, privi-*  
 12           *leges, rights, seniority, and other benefits, an employee of*  
 13           *the agency from which detailed.*

14           *(b) REEMPLOYMENT RIGHTS.—*

15           *(1) IN GENERAL.—An employee of an agency*  
 16           *who is serving under a career or career conditional*  
 17           *appointment (or the equivalent), and who, with the*  
 18           *consent of the head of such agency, transfers to the*  
 19           *Foundation, is entitled to be reemployed in such em-*  
 20           *ployee's former position or a position of like seniority,*  
 21           *status, and pay in such agency, if such employee—*

22                   *(A) is separated from the Foundation for*  
 23                   *any reason, other than misconduct, neglect of*  
 24                   *duty, or malfeasance; and*

1                   (B) applies for reemployment not later than  
2                   90 days after the date of separation from the  
3                   Foundation.

4                   (2) *SPECIFIC RIGHTS.*—An employee who satis-  
5                   fies paragraph (1) is entitled to be reemployed (in ac-  
6                   cordance with such paragraph) within 30 days after  
7                   applying for reemployment and, on reemployment, is  
8                   entitled to at least the rate of basic pay to which such  
9                   employee would have been entitled had such employee  
10                  never transferred.

11                  (c) *HIRING AUTHORITY.*—Of persons employed by the  
12                  Foundation, no more than 30 persons may be appointed,  
13                  compensated, or removed without regard to the civil service  
14                  laws and regulations.

15                  (d) *BASIC PAY.*—The Chief Executive Officer may fix  
16                  the rate of basic pay of employees of the Foundation without  
17                  regard to the provisions of chapter 51 of title 5, United  
18                  States Code (relating to the classification of positions), sub-  
19                  chapter III of chapter 53 of such title (relating to General  
20                  Schedule pay rates), except that no employee of the Founda-  
21                  tion may receive a rate of basic pay that exceeds the rate  
22                  for level IV of the Executive Schedule under section 5315  
23                  of such title.

24                  (e) *DEFINITIONS.*—In this section—



1           (1) *the term “agency” means an executive agen-*  
 2           *cy, as defined by section 105 of title 5, United States*  
 3           *Code; and*

4           (2) *the term “detail” means the assignment or*  
 5           *loan of an employee, without a change of position,*  
 6           *from the agency by which such employee is employed*  
 7           *to the Foundation.*

8   **SEC. 927. AUTHORIZATION OF APPROPRIATIONS.**

9           (a) *AUTHORIZATION OF APPROPRIATIONS.—To carry*  
 10          *out this subtitle, there are authorized to be appropriated*  
 11          *\$20,000,000 for each of the fiscal years 2009 through 2013.*

12          (b) *ALLOCATION OF FUNDS.—*

13           (1) *IN GENERAL.—The Foundation may allocate*  
 14          *or transfer to any agency of the United States Gov-*  
 15          *ernment any of the funds available for carrying out*  
 16          *this subtitle. Such funds shall be available for obliga-*  
 17          *tion and expenditure for the purposes for which the*  
 18          *funds were authorized, in accordance with authority*  
 19          *granted in this subtitle or under authority governing*  
 20          *the activities of the United States Government agency*  
 21          *to which such funds are allocated or transferred.*

22           (2) *NOTIFICATION.—The Foundation shall notify*  
 23          *the appropriate congressional committees not less*  
 24          *than 15 days prior to an allocation or transfer of*  
 25          *funds pursuant to paragraph (1).*

***Subtitle C—Miscellaneous  
Provisions***

***SEC. 931. ENERGY DIPLOMACY AND SECURITY WITHIN THE  
DEPARTMENT OF STATE.***

*(a) STATE DEPARTMENT COORDINATOR FOR INTERNATIONAL ENERGY AFFAIRS.—*

*(1) IN GENERAL.—The Secretary of State should ensure that energy security is integrated into the core mission of the Department of State.*

*(2) COORDINATOR FOR INTERNATIONAL ENERGY AFFAIRS.—There is established within the Office of the Secretary of State a Coordinator for International Energy Affairs, who shall be responsible for—*

*(A) representing the Secretary of State in interagency efforts to develop the international energy policy of the United States;*

*(B) ensuring that analyses of the national security implications of global energy and environmental developments are reflected in the decision making process within the Department of State;*

*(C) incorporating energy security priorities into the activities of the Department of State;*

1                   (D) coordinating energy activities of the De-  
 2                   partment of State with relevant Federal agen-  
 3                   cies; and

4                   (E) coordinating energy security and other  
 5                   relevant functions within the Department of  
 6                   State currently undertaken by offices within—

7                   (i) the Bureau of Economic, Energy  
 8                   and Business Affairs;

9                   (ii) the Bureau of Oceans and Inter-  
 10                  national Environmental and Scientific Af-  
 11                  fairs; and

12                  (iii) other offices within the Depart-  
 13                  ment of State.

14                  (3) AUTHORIZATION OF APPROPRIATIONS.—

15                  There are authorized to be appropriated such sums as  
 16                  may be necessary to carry out this subsection.

17                  (b) ENERGY EXPERTS IN KEY EMBASSIES.—Not later  
 18                  than 180 days after the date of the enactment of this Act,  
 19                  the Secretary of State shall submit a report to the Com-  
 20                  mittee on Foreign Relations of the Senate and the Com-  
 21                  mittee on Foreign Affairs of the House of Representatives  
 22                  that includes—

23                  (1) a description of the Department of State per-  
 24                  sonnel who are dedicated to energy matters and are

1       *stationed at embassies and consulates in countries*  
2       *that are major energy producers or consumers;*

3           (2) *an analysis of the need for Federal energy*  
4       *specialist personnel in United States embassies and*  
5       *other United States diplomatic missions; and*

6           (3) *recommendations for increasing energy ex-*  
7       *pertise within United States embassies among foreign*  
8       *service officers and options for assigning to such em-*  
9       *bassies energy attachés from the National Labora-*  
10      *tories or other agencies within the Department of En-*  
11      *ergy.*

12       (c) *ENERGY ADVISORS.*—*The Secretary of Energy may*  
13      *make appropriate arrangements with the Secretary of State*  
14      *to assign personnel from the Department of Energy or the*  
15      *National Laboratories of the Department of Energy to serve*  
16      *as dedicated advisors on energy matters in embassies of the*  
17      *United States or other United States diplomatic missions.*

18       (d) *REPORT.*—*Not later than 180 days after the date*  
19      *of the enactment of this Act, and every 2 years thereafter*  
20      *for the following 20 years, the Secretary of State shall sub-*  
21      *mit a report to the Committee on Foreign Relations of the*  
22      *Senate and the Committee on Foreign Affairs of the House*  
23      *of Representatives that describes—*

1           (1) *the energy-related activities being conducted*  
 2           *by the Department of State, including activities*  
 3           *within—*

4                     (A) *the Bureau of Economic, Energy and*  
 5                     *Business Affairs;*

6                     (B) *the Bureau of Oceans and Environ-*  
 7                     *mental and Scientific Affairs; and*

8                     (C) *other offices within the Department of*  
 9                     *State;*

10           (2) *the amount of funds spent on each activity*  
 11           *within each office described in paragraph (1); and*

12           (3) *the number and qualification of personnel in*  
 13           *each embassy (or relevant foreign posting) of the*  
 14           *United States whose work is dedicated exclusively to*  
 15           *energy matters.*

16 **SEC. 932. NATIONAL SECURITY COUNCIL REORGANIZATION.**

17           *Section 101(a) of the National Security Act of 1947*  
 18           *(50 U.S.C. 402(a)) is amended—*

19                     (1) *by redesignating paragraphs (5), (6), and (7)*  
 20                     *as paragraphs (6), (7), and (8), respectively; and*

21                     (2) *by inserting after paragraph (4) the fol-*  
 22                     *lowing:*

23                     “(5) *the Secretary of Energy;*”.

1 **SEC. 933. ANNUAL NATIONAL ENERGY SECURITY STRATEGY**

2 **REPORT.**

3 *(a) REPORTS.—*

4 *(1) IN GENERAL.—Subject to paragraph (2), on*  
5 *the date on which the President submits to Congress*  
6 *the budget for the following fiscal year under section*  
7 *1105 of title 31, United States Code, the President*  
8 *shall submit to Congress a comprehensive report on*  
9 *the national energy security of the United States.*

10 *(2) NEW PRESIDENTS.—In addition to the re-*  
11 *ports required under paragraph (1), the President*  
12 *shall submit a comprehensive report on the national*  
13 *energy security of the United States by not later than*  
14 *150 days after the date on which the President as-*  
15 *sumes the office of President after a presidential elec-*  
16 *tion.*

17 *(b) CONTENTS.—Each report under this section shall*  
18 *describe the national energy security strategy of the United*  
19 *States, including a comprehensive description of—*

20 *(1) the worldwide interests, goals, and objectives*  
21 *of the United States that are vital to the national en-*  
22 *ergy security of the United States;*

23 *(2) the foreign policy, worldwide commitments,*  
24 *and national defense capabilities of the United States*  
25 *necessary—*

1                   (A) to deter political manipulation of world  
2                   energy resources; and

3                   (B) to implement the national energy secu-  
4                   rity strategy of the United States;

5                   (3) the proposed short-term and long-term uses of  
6                   the political, economic, military, and other authori-  
7                   ties of the United States—

8                   (A) to protect or promote energy security;  
9                   and

10                  (B) to achieve the goals and objectives de-  
11                  scribed in paragraph (1);

12                  (4) the adequacy of the capabilities of the United  
13                  States to protect the national energy security of the  
14                  United States, including an evaluation of the balance  
15                  among the capabilities of all elements of the national  
16                  authority of the United States to support the imple-  
17                  mentation of the national energy security strategy;  
18                  and

19                  (5) such other information as the President de-  
20                  termines to be necessary to inform Congress on mat-  
21                  ters relating to the national energy security of the  
22                  United States.

23                  (c) *CLASSIFIED AND UNCLASSIFIED FORM.*—Each na-  
24                  tional energy security strategy report shall be submitted to  
25                  Congress in—

1           (1) *a classified form; and*

2           (2) *an unclassified form.*

3   **SEC. 934. CONVENTION ON SUPPLEMENTARY COMPENSA-**  
 4                   **TION FOR NUCLEAR DAMAGE CONTINGENT**  
 5                   **COST ALLOCATION.**

6       (a) *FINDINGS AND PURPOSE.*—

7           (1) *FINDINGS.*—Congress finds that—

8                   (A) *section 170 of the Atomic Energy Act of*  
 9                   *1954 (42 U.S.C. 2210) (commonly known as the*  
 10                   *“Price-Anderson Act”)*—

11                       (i) *provides a predictable legal frame-*  
 12                       *work necessary for nuclear projects; and*

13                       (ii) *ensures prompt and equitable com-*  
 14                       *pensation in the event of a nuclear incident*  
 15                       *in the United States;*

16                   (B) *the Price-Anderson Act, in effect, pro-*  
 17                   *vides operators of nuclear powerplants with in-*  
 18                   *surance for damage arising out of a nuclear in-*  
 19                   *cident and funds the insurance primarily*  
 20                   *through the assessment of a retrospective pre-*  
 21                   *mium from each operator after the occurrence of*  
 22                   *a nuclear incident;*

23                   (C) *the Convention on Supplementary Com-*  
 24                   *pensation for Nuclear Damage, done at Vienna*



1           *on September 12, 1997, will establish a global*  
2           *system—*

3                     *(i) to provide a predictable legal*  
4                     *framework necessary for nuclear energy*  
5                     *projects; and*

6                     *(ii) to ensure prompt and equitable*  
7                     *compensation in the event of a nuclear inci-*  
8                     *dent;*

9                     *(D) the Convention benefits United States*  
10                    *nuclear suppliers that face potentially unlimited*  
11                    *liability for nuclear incidents that are not cov-*  
12                    *ered by the Price-Anderson Act by replacing a*  
13                    *potentially open-ended liability with a predict-*  
14                    *able liability regime that, in effect, provides nu-*  
15                    *clear suppliers with insurance for damage aris-*  
16                    *ing out of such an incident;*

17                    *(E) the Convention also benefits United*  
18                    *States nuclear facility operators that may be*  
19                    *publicly liable for a Price-Anderson incident by*  
20                    *providing an additional early source of funds to*  
21                    *compensate damage arising out of the Price-An-*  
22                    *derson incident;*

23                    *(F) the combined operation of the Conven-*  
24                    *tion, the Price-Anderson Act, and this section*  
25                    *will augment the quantity of assured funds*

1       *available for victims in a wider variety of nu-*  
2       *clear incidents while reducing the potential li-*  
3       *ability of United States suppliers without in-*  
4       *creasing potential costs to United States opera-*  
5       *tors;*

6               *(G) the cost of those benefits is the obliga-*  
7       *tion of the United States to contribute to the*  
8       *supplementary compensation fund established by*  
9       *the Convention;*

10              *(H) any such contribution should be funded*  
11       *in a manner that does not—*

12                   *(i) upset settled expectations based on*  
13       *the liability regime established under the*  
14       *Price-Anderson Act; or*

15                   *(ii) shift to Federal taxpayers liability*  
16       *risks for nuclear incidents at foreign instal-*  
17       *lations;*

18              *(I) with respect to a Price-Anderson inci-*  
19       *dent, funds already available under the Price-*  
20       *Anderson Act should be used; and*

21              *(J) with respect to a nuclear incident out-*  
22       *side the United States not covered by the Price-*  
23       *Anderson Act, a retrospective premium should be*  
24       *prorated among nuclear suppliers relieved from*

1       *potential liability for which insurance is not*  
2       *available.*

3       (2) *PURPOSE.*—*The purpose of this section is to*  
4       *allocate the contingent costs associated with partici-*  
5       *pation by the United States in the international nu-*  
6       *clear liability compensation system established by the*  
7       *Convention on Supplementary Compensation for Nu-*  
8       *clear Damage, done at Vienna on September 12,*  
9       *1997—*

10       (A) *with respect to a Price-Anderson inci-*  
11       *dent, by using funds made available under sec-*  
12       *tion 170 of the Atomic Energy Act of 1954 (42*  
13       *U.S.C. 2210) to cover the contingent costs in a*  
14       *manner that neither increases the burdens nor*  
15       *decreases the benefits under section 170 of that*  
16       *Act; and*

17       (B) *with respect to a covered incident out-*  
18       *side the United States that is not a Price-Ander-*  
19       *son incident, by allocating the contingent costs*  
20       *equitably, on the basis of risk, among the class*  
21       *of nuclear suppliers relieved by the Convention*  
22       *from the risk of potential liability resulting from*  
23       *any covered incident outside the United States.*

24       (b) *DEFINITIONS.*—*In this section:*

1           (1) *COMMISSION.*—*The term “Commission”*  
2           *means the Nuclear Regulatory Commission.*

3           (2) *CONTINGENT COST.*—*The term “contingent*  
4           *cost” means the cost to the United States in the event*  
5           *of a covered incident the amount of which is equal to*  
6           *the amount of funds the United States is obligated to*  
7           *make available under paragraph 1(b) of Article III of*  
8           *the Convention.*

9           (3) *CONVENTION.*—*The term “Convention”*  
10          *means the Convention on Supplementary Compensa-*  
11          *tion for Nuclear Damage, done at Vienna on Sep-*  
12          *tember 12, 1997.*

13          (4) *COVERED INCIDENT.*—*The term “covered in-*  
14          *cident” means a nuclear incident the occurrence of*  
15          *which results in a request for funds pursuant to Arti-*  
16          *cle VII of the Convention.*

17          (5) *COVERED INSTALLATION.*—*The term “covered*  
18          *installation” means a nuclear installation at which*  
19          *the occurrence of a nuclear incident could result in a*  
20          *request for funds under Article VII of the Convention.*

21          (6) *COVERED PERSON.*—

22                 (A) *IN GENERAL.*—*The term “covered per-*  
23                 *son” means—*

24                         (i) *a United States person; and*

1                   (ii) an individual or entity (including  
2                   an agency or instrumentality of a foreign  
3                   country) that—

4                   (I) is located in the United States;

5                   or

6                   (II) carries out an activity in the  
7                   United States.

8                   (B) *EXCLUSIONS.*—The term “covered per-  
9                   son” does not include—

10                  (i) the United States; or

11                  (ii) any agency or instrumentality of  
12                  the United States.

13                  (7) *NUCLEAR SUPPLIER.*—The term “nuclear  
14                  supplier” means a covered person (or a successor in  
15                  interest of a covered person) that—

16                  (A) supplies facilities, equipment, fuel, serv-  
17                  ices, or technology pertaining to the design, con-  
18                  struction, operation, or decommissioning of a  
19                  covered installation; or

20                  (B) transports nuclear materials that could  
21                  result in a covered incident.

22                  (8) *PRICE-ANDERSON INCIDENT.*—The term  
23                  “Price-Anderson incident” means a covered incident  
24                  for which section 170 of the Atomic Energy Act of  
25                  1954 (42 U.S.C. 2210) would make funds available to

1       *compensate for public liability (as defined in section*  
 2       *11 of that Act (42 U.S.C. 2014)).*

3           (9) *SECRETARY.*—*The term “Secretary” means*  
 4       *the Secretary of Energy.*

5           (10) *UNITED STATES.*—

6               (A) *IN GENERAL.*—*The term “United*  
 7       *States” has the meaning given the term in sec-*  
 8       *tion 11 of the Atomic Energy Act of 1954 (42*  
 9       *U.S.C. 2014).*

10            (B) *INCLUSIONS.*—*The term “United*  
 11       *States” includes—*

12                   (i) *the Commonwealth of Puerto Rico;*

13                   (ii) *any other territory or possession of*  
 14       *the United States;*

15                   (iii) *the Canal Zone; and*

16                   (iv) *the waters of the United States ter-*  
 17       *ritorial sea under Presidential Proclama-*  
 18       *tion Number 5928, dated December 27,*  
 19       *1988 (43 U.S.C. 1331 note).*

20           (11) *UNITED STATES PERSON.*—*The term*  
 21       *“United States person” means—*

22               (A) *any individual who is a resident, na-*  
 23       *tional, or citizen of the United States (other than*  
 24       *an individual residing outside of the United*

1           *States and employed by a person who is not a*  
 2           *United States person); and*

3                     *(B) any corporation, partnership, associa-*  
 4                     *tion, joint stock company, business trust, unin-*  
 5                     *corporated organization, or sole proprietorship*  
 6                     *that is organized under the laws of the United*  
 7                     *States.*

8           *(c) USE OF PRICE-ANDERSON FUNDS.—*

9                     *(1) IN GENERAL.—Funds made available under*  
 10                    *section 170 of the Atomic Energy Act of 1954 (42*  
 11                    *U.S.C. 2210) shall be used to cover the contingent cost*  
 12                    *resulting from any Price-Anderson incident.*

13                    *(2) EFFECT.—The use of funds pursuant to*  
 14                    *paragraph (1) shall not reduce the limitation on pub-*  
 15                    *lic liability established under section 170 e. of the*  
 16                    *Atomic Energy Act of 1954 (42 U.S.C. 2210(e)).*

17           *(d) EFFECT ON AMOUNT OF PUBLIC LIABILITY.—*

18                    *(1) IN GENERAL.—Funds made available to the*  
 19                    *United States under Article VII of the Convention*  
 20                    *with respect to a Price-Anderson incident shall be*  
 21                    *used to satisfy public liability resulting from the*  
 22                    *Price-Anderson incident.*

23                    *(2) AMOUNT.—The amount of public liability al-*  
 24                    *lowable under section 170 of the Atomic Energy Act*  
 25                    *of 1954 (42 U.S.C. 2210) relating to a Price-Anders-*

1       son incident under paragraph (1) shall be increased  
2       by an amount equal to the difference between—

3               (A) the amount of funds made available for  
4       the Price-Anderson incident under Article VII of  
5       the Convention; and

6               (B) the amount of funds used under sub-  
7       section (c) to cover the contingent cost resulting  
8       from the Price-Anderson incident.

9       (e) *RETROSPECTIVE RISK POOLING PROGRAM.*—

10           (1) *IN GENERAL.*—Except as provided under  
11       paragraph (2), each nuclear supplier shall participate  
12       in a retrospective risk pooling program in accordance  
13       with this section to cover the contingent cost resulting  
14       from a covered incident outside the United States that  
15       is not a Price-Anderson incident.

16           (2) *DEFERRED PAYMENT.*—

17               (A) *IN GENERAL.*—The obligation of a nu-  
18       clear supplier to participate in the retrospective  
19       risk pooling program shall be deferred until the  
20       United States is called on to provide funds pur-  
21       suant to Article VII of the Convention with re-  
22       spect to a covered incident that is not a Price-  
23       Anderson incident.

24               (B) *AMOUNT OF DEFERRED PAYMENT.*—The  
25       amount of a deferred payment of a nuclear sup-



plier under subparagraph (A) shall be based on the risk-informed assessment formula determined under subparagraph (C).

(C) *RISK-INFORMED ASSESSMENT FORMULA.*—

(i) *IN GENERAL.*—Not later than 3 years after the date of the enactment of this Act, and every 5 years thereafter, the Secretary shall, by regulation, determine the risk-informed assessment formula for the allocation among nuclear suppliers of the contingent cost resulting from a covered incident that is not a Price-Anderson incident, taking into account risk factors such as—

(I) the nature and intended purpose of the goods and services supplied by each nuclear supplier to each covered installation outside the United States;

(II) the quantity of the goods and services supplied by each nuclear supplier to each covered installation outside the United States;

(III) the hazards associated with the supplied goods and services if the

1                    *goods and services fail to achieve the*  
 2                    *intended purposes;*

3                    *(IV) the hazards associated with*  
 4                    *the covered installation outside the*  
 5                    *United States to which the goods and*  
 6                    *services are supplied;*

7                    *(V) the legal, regulatory, and fi-*  
 8                    *nancial infrastructure associated with*  
 9                    *the covered installation outside the*  
 10                    *United States to which the goods and*  
 11                    *services are supplied; and*

12                    *(VI) the hazards associated with*  
 13                    *particular forms of transportation.*

14                    *(ii) FACTORS FOR CONSIDERATION.—*  
 15                    *In determining the formula, the Secretary*  
 16                    *may—*

17                    *(I) exclude—*

18                    *(aa) goods and services with*  
 19                    *negligible risk;*

20                    *(bb) classes of goods and*  
 21                    *services not intended specifically*  
 22                    *for use in a nuclear installation;*

23                    *(cc) a nuclear supplier with*  
 24                    *a de minimis share of the contin-*  
 25                    *gent cost; and*

1                    *(dd) a nuclear supplier no*  
 2                    *longer in existence for which there*  
 3                    *is no identifiable successor; and*

4                    *(II) establish the period on which*  
 5                    *the risk assessment is based.*

6                    *(iii) APPLICATION.—In applying the*  
 7                    *formula, the Secretary shall not consider*  
 8                    *any covered installation or transportation*  
 9                    *for which funds would be available under*  
 10                    *section 170 of the Atomic Energy Act of*  
 11                    *1954 (42 U.S.C. 2210).*

12                    *(iv) REPORT.—Not later than 5 years*  
 13                    *after the date of the enactment of this Act,*  
 14                    *and every 5 years thereafter, the Secretary*  
 15                    *shall submit to the Committee on Environ-*  
 16                    *ment and Public Works of the Senate and*  
 17                    *the Committee on Energy and Commerce of*  
 18                    *the House of Representatives a report on*  
 19                    *whether there is a need for continuation or*  
 20                    *amendment of this section, taking into ac-*  
 21                    *count the effects of the implementation of*  
 22                    *the Convention on the United States nuclear*  
 23                    *industry and suppliers.*

24                    *(f) REPORTING.—*

25                    *(1) COLLECTION OF INFORMATION.—*

1           (A) *IN GENERAL.*—*The Secretary may col-*  
2           *lect information necessary for developing and*  
3           *implementing the formula for calculating the de-*  
4           *ferred payment of a nuclear supplier under sub-*  
5           *section (e)(2).*

6           (B) *PROVISION OF INFORMATION.*—*Each*  
7           *nuclear supplier and other appropriate persons*  
8           *shall make available to the Secretary such infor-*  
9           *mation, reports, records, documents, and other*  
10          *data as the Secretary determines, by regulation,*  
11          *to be necessary or appropriate to develop and*  
12          *implement the formula under subsection*  
13          *(e)(2)(C).*

14          (2) *PRIVATE INSURANCE.*—*The Secretary shall*  
15          *make available to nuclear suppliers, and insurers of*  
16          *nuclear suppliers, information to support the vol-*  
17          *untary establishment and maintenance of private in-*  
18          *surance against any risk for which nuclear suppliers*  
19          *may be required to pay deferred payments under this*  
20          *section.*

21          (g) *EFFECT ON LIABILITY.*—*Nothing in any other law*  
22          *(including regulations) limits liability for a covered inci-*  
23          *dent to an amount equal to less than the amount prescribed*  
24          *in paragraph 1(a) of Article IV of the Convention, unless*  
25          *the law—*

1           (1) *specifically refers to this section; and*

2           (2) *explicitly repeals, alters, amends, modifies,*  
3           *impairs, displaces, or supersedes the effect of this sub-*  
4           *section.*

5           (h) *PAYMENTS TO AND BY THE UNITED STATES.—*

6           (1) *ACTION BY NUCLEAR SUPPLIERS.—*

7                   (A) *NOTIFICATION.—In the case of a request*  
8                   *for funds under Article VII of the Convention re-*  
9                   *sulting from a covered incident that is not a*  
10                   *Price-Anderson incident, the Secretary shall no-*  
11                   *tify each nuclear supplier of the amount of the*  
12                   *deferred payment required to be made by the nu-*  
13                   *clear supplier.*

14           (B) *PAYMENTS.—*

15                   (i) *IN GENERAL.—Except as provided*  
16                   *under clause (ii), not later than 60 days*  
17                   *after receipt of a notification under sub-*  
18                   *paragraph (A), a nuclear supplier shall pay*  
19                   *to the general fund of the Treasury the de-*  
20                   *ferred payment of the nuclear supplier re-*  
21                   *quired under subparagraph (A).*

22                   (ii) *ANNUAL PAYMENTS.—A nuclear*  
23                   *supplier may elect to prorate payment of*  
24                   *the deferred payment required under sub-*  
25                   *paragraph (A) in 5 equal annual payments*

1           *(including interest on the unpaid balance at*  
2           *the prime rate prevailing at the time the*  
3           *first payment is due).*

4           (C) *VOUCHERS.*—*A nuclear supplier shall*  
5           *submit payment certification vouchers to the*  
6           *Secretary of the Treasury in accordance with*  
7           *section 3325 of title 31, United States Code.*

8           (2) *USE OF FUNDS.*—

9           (A) *IN GENERAL.*—*Amounts paid into the*  
10          *Treasury under paragraph (1) shall be available*  
11          *to the Secretary of the Treasury, without further*  
12          *appropriation and without fiscal year limita-*  
13          *tion, for the purpose of making the contributions*  
14          *of public funds required to be made by the*  
15          *United States under the Convention.*

16          (B) *ACTION BY SECRETARY OF TREAS-*  
17          *URY.*—*The Secretary of the Treasury shall pay*  
18          *the contribution required under the Convention*  
19          *to the court of competent jurisdiction under Arti-*  
20          *cle XIII of the Convention with respect to the ap-*  
21          *plicable covered incident.*

22          (3) *FAILURE TO PAY.*—*If a nuclear supplier fails*  
23          *to make a payment required under this subsection,*  
24          *the Secretary may take appropriate action to recover*  
25          *from the nuclear supplier—*

1           (A) *the amount of the payment due from the*  
 2           *nuclear supplier;*

3           (B) *any applicable interest on the payment;*  
 4           *and*

5           (C) *a penalty of not more than twice the*  
 6           *amount of the deferred payment due from the*  
 7           *nuclear supplier.*

8           (i) *LIMITATION ON JUDICIAL REVIEW; CAUSE OF AC-*  
 9           *TION.—*

10           (1) *LIMITATION ON JUDICIAL REVIEW.—*

11           (A) *IN GENERAL.—In any civil action aris-*  
 12           *ing under the Convention over which Article*  
 13           *XIII of the Convention grants jurisdiction to the*  
 14           *courts of the United States, any appeal or review*  
 15           *by writ of mandamus or otherwise with respect*  
 16           *to a nuclear incident that is not a Price-Ander-*  
 17           *son incident shall be in accordance with chapter*  
 18           *83 of title 28, United States Code, except that the*  
 19           *appeal or review shall occur in the United States*  
 20           *Court of Appeals for the District of Columbia*  
 21           *Circuit.*

22           (B) *SUPREME COURT JURISDICTION.—Noth-*  
 23           *ing in this paragraph affects the jurisdiction of*  
 24           *the Supreme Court of the United States under*  
 25           *chapter 81 of title 28, United States Code.*

1           (2) *CAUSE OF ACTION.*—

2                   (A) *IN GENERAL.*—Subject to subparagraph  
3           (B), in any civil action arising under the Con-  
4           vention over which Article XIII of the Conven-  
5           tion grants jurisdiction to the courts of the  
6           United States, in addition to any other cause of  
7           action that may exist, an individual or entity  
8           shall have a cause of action against the operator  
9           to recover for nuclear damage suffered by the in-  
10          dividual or entity.

11                  (B) *REQUIREMENT.*—Subparagraph (A)  
12          shall apply only if the individual or entity seeks  
13          a remedy for nuclear damage (as defined in Ar-  
14          ticle I of the Convention) that was caused by a  
15          nuclear incident (as defined in Article I of the  
16          Convention) that is not a Price-Anderson inci-  
17          dent.

18                  (C) *SAVINGS PROVISION.*—Nothing in this  
19          paragraph may be construed to limit, modify,  
20          extinguish, or otherwise affect any cause of ac-  
21          tion that would have existed in the absence of en-  
22          actment of this paragraph.

23          (j) *RIGHT OF RECOURSE.*—This section does not pro-  
24          vide to an operator of a covered installation any right of  
25          recourse under the Convention.



1       (k) *PROTECTION OF SENSITIVE UNITED STATES IN-*  
 2 *FORMATION.*—*Nothing in the Convention or this section re-*  
 3 *quires the disclosure of—*

4           (1) *any data that, at any time, was Restricted*  
 5 *Data (as defined in section 11 of the Atomic Energy*  
 6 *Act of 1954 (42 U.S.C. 2014));*

7           (2) *information relating to intelligence sources or*  
 8 *methods protected by section 102A(i) of the National*  
 9 *Security Act of 1947 (50 U.S.C. 403–1(i)); or*

10          (3) *national security information classified*  
 11 *under Executive Order 12958 (50 U.S.C. 435 note; re-*  
 12 *lating to classified national security information) (or*  
 13 *a successor Executive Order or regulation).*

14       (l) *REGULATIONS.*—

15           (1) *IN GENERAL.*—*The Secretary or the Commis-*  
 16 *sion, as appropriate, may prescribe regulations to*  
 17 *carry out section 170 of the Atomic Energy Act of*  
 18 *1954 (42 U.S.C. 2210) and this section.*

19           (2) *REQUIREMENT.*—*Rules prescribed under this*  
 20 *subsection shall ensure, to the maximum extent prac-*  
 21 *ticable, that—*

22               (A) *the implementation of section 170 of the*  
 23 *Atomic Energy Act of 1954 (42 U.S.C. 2210)*  
 24 *and this section is consistent and equitable; and*

1                   (B) the financial and operational burden on  
 2                   a Commission licensee in complying with section  
 3                   170 of that Act is not greater as a result of the  
 4                   enactment of this section.

5                   (3) *APPLICABILITY OF PROVISION.*—Section 553  
 6                   of title 5, United States Code, shall apply with re-  
 7                   spect to the promulgation of regulations under this  
 8                   subsection.

9                   (4) *EFFECT OF SUBSECTION.*—The authority  
 10                  provided under this subsection is in addition to, and  
 11                  does not impair or otherwise affect, any other author-  
 12                  ity of the Secretary or the Commission to prescribe  
 13                  regulations.

14                  (m) *EFFECTIVE DATE.*—This section shall take effect  
 15                  on the date of the enactment of this Act.

16 **SEC. 935. TRANSPARENCY IN EXTRACTIVE INDUSTRIES RE-**  
 17 **SOURCE PAYMENTS.**

18                  (a) *PURPOSE.*—The purpose of this section is to—

19                       (1) ensure greater United States energy security  
 20                       by combating corruption in the governments of for-  
 21                       eign countries that receive revenues from the sale of  
 22                       their natural resources; and

23                       (2) enhance the development of democracy and  
 24                       increase political and economic stability in such re-  
 25                       source rich foreign countries.

1       (b) *STATEMENT OF POLICY.*—*It is the policy of the*  
 2 *United States—*

3           (1) *to increase energy security by promoting*  
 4 *anti-corruption initiatives in oil and natural gas rich*  
 5 *countries; and*

6           (2) *to promote global energy security through*  
 7 *promotion of programs such as the Extractive Indus-*  
 8 *tries Transparency Initiative (EITI) that seek to in-*  
 9 *still transparency and accountability into extractive*  
 10 *industries resource payments.*

11       (c) *SENSE OF CONGRESS.*—*It is the sense of Congress*  
 12 *that the United States should further global energy security*  
 13 *and promote democratic development in resource-rich for-*  
 14 *ign countries by—*

15           (1) *encouraging further participation in the*  
 16 *EITI by eligible countries and companies; and*

17           (2) *promoting the efficacy of the EITI program*  
 18 *by ensuring a robust and candid review mechanism.*

19       (d) *REPORT.*—

20           (1) *REPORT REQUIRED.*—*Not later than 180*  
 21 *days after the date of the enactment of this Act, and*  
 22 *annually thereafter, the Secretary of State, in con-*  
 23 *sultation with the Secretary of Energy, shall submit*  
 24 *to the appropriate congressional committees a report*

1       on progress made in promoting transparency in ex-  
2       tractive industries resource payments.

3               (2) *MATTERS TO BE INCLUDED.*—The report re-  
4       quired by paragraph (1) shall include a detailed de-  
5       scription of United States participation in the *EITI*,  
6       bilateral and multilateral diplomatic efforts to further  
7       participation in the *EITI*, and other United States  
8       initiatives to strengthen energy security, deter energy  
9       kleptocracy, and promote transparency in the extrac-  
10      tive industries.

11       (e) *AUTHORIZATION OF APPROPRIATIONS.*—There is  
12      authorized to be appropriated \$3,000,000 for the purposes  
13      of United States contributions to the Multi-Donor Trust  
14      Fund of the *EITI*.

## 15                   **TITLE X—GREEN JOBS**

### 16      **SEC. 1001. SHORT TITLE.**

17       This title may be cited as the “Green Jobs Act of  
18      2007”.

### 19      **SEC. 1002. ENERGY EFFICIENCY AND RENEWABLE ENERGY** 20                   **WORKER TRAINING PROGRAM.**

21       Section 171 of the Workforce Investment Act of 1998  
22      (29 U.S.C. 2916) is amended by adding at the end the fol-  
23      lowing:

24       “(e) *ENERGY EFFICIENCY AND RENEWABLE ENERGY*  
25      *WORKER TRAINING PROGRAM.*—

1 “(1) *GRANT PROGRAM.*—

2 “(A) *IN GENERAL.*—Not later than 6  
3 months after the date of enactment of the Green  
4 Jobs Act of 2007, the Secretary, in consultation  
5 with the Secretary of Energy, shall establish an  
6 energy efficiency and renewable energy worker  
7 training program under which the Secretary  
8 shall carry out the activities described in para-  
9 graph (2) to achieve the purposes of this sub-  
10 section.

11 “(B) *ELIGIBILITY.*—For purposes of pro-  
12 viding assistance and services under the program  
13 established under this subsection—

14 “(i) target populations of eligible indi-  
15 viduals to be given priority for training  
16 and other services shall include—

17 “(I) workers impacted by national  
18 energy and environmental policy;

19 “(II) individuals in need of up-  
20 dated training related to the energy ef-  
21 ficiency and renewable energy indus-  
22 tries;

23 “(III) veterans, or past and  
24 present members of reserve components  
25 of the Armed Forces;

1                   “(IV) *unemployed individuals;*

2                   “(V) *individuals, including at-*  
3                   *risk youth, seeking employment path-*  
4                   *ways out of poverty and into economic*  
5                   *self-sufficiency; and*

6                   “(VI) *formerly incarcerated, adju-*  
7                   *dicated, nonviolent offenders; and*

8                   “(ii) *energy efficiency and renewable*  
9                   *energy industries eligible to participate in a*  
10                  *program under this subsection include—*

11                  “(I) *the energy-efficient building,*  
12                  *construction, and retrofits industries;*

13                  “(II) *the renewable electric power*  
14                  *industry;*

15                  “(III) *the energy efficient and ad-*  
16                  *vanced drive train vehicle industry;*

17                  “(IV) *the biofuels industry;*

18                  “(V) *the deconstruction and mate-*  
19                  *rials use industries;*

20                  “(VI) *the energy efficiency assess-*  
21                  *ment industry serving the residential,*  
22                  *commercial, or industrial sectors; and*

23                  “(VII) *manufacturers that*  
24                  *produce sustainable products using en-*

1                    *vironmentally sustainable processes*  
2                    *and materials.*

3            “(2) *ACTIVITIES.*—

4                    “(A) *NATIONAL RESEARCH PROGRAM.*—

5            *Under the program established under paragraph*  
6            *(1), the Secretary, acting through the Bureau of*  
7            *Labor Statistics, where appropriate, shall collect*  
8            *and analyze labor market data to track work-*  
9            *force trends resulting from energy-related initia-*  
10           *tives carried out under this subsection. Activities*  
11           *carried out under this paragraph shall include—*

12                    “(i) *tracking and documentation of*  
13                    *academic and occupational competencies as*  
14                    *well as future skill needs with respect to re-*  
15                    *newable energy and energy efficiency tech-*  
16                    *nology;*

17                    “(ii) *tracking and documentation of*  
18                    *occupational information and workforce*  
19                    *training data with respect to renewable en-*  
20                    *ergy and energy efficiency technology;*

21                    “(iii) *collaborating with State agen-*  
22                    *cies, workforce investments boards, industry,*  
23                    *organized labor, and community and non-*  
24                    *profit organizations to disseminate informa-*  
25                    *tion on successful innovations for labor*

1           *market services and worker training with*  
2           *respect to renewable energy and energy effi-*  
3           *ciency technology;*

4           “(iv) *serving as a clearinghouse for*  
5           *best practices in workforce development, job*  
6           *placement, and collaborative training part-*  
7           *nerships;*

8           “(v) *encouraging the establishment of*  
9           *workforce training initiatives with respect*  
10          *to renewable energy and energy efficiency*  
11          *technologies;*

12          “(vi) *linking research and development*  
13          *in renewable energy and energy efficiency*  
14          *technology with the development of stand-*  
15          *ards and curricula for current and future*  
16          *jobs;*

17          “(vii) *assessing new employment and*  
18          *work practices including career ladder and*  
19          *upgrade training as well as high perform-*  
20          *ance work systems; and*

21          “(viii) *providing technical assistance*  
22          *and capacity building to national and*  
23          *State energy partnerships, including indus-*  
24          *try and labor representatives.*



1                   “(B) *NATIONAL ENERGY TRAINING PART-*  
2                   *NERSHIP GRANTS.*—

3                   “(i) *IN GENERAL.*—*Under the program*  
4                   *established under paragraph (1), the Sec-*  
5                   *retary shall award National Energy Train-*  
6                   *ing Partnerships Grants on a competitive*  
7                   *basis to eligible entities to enable such enti-*  
8                   *ties to carry out training that leads to eco-*  
9                   *nomie self-sufficiency and to develop an en-*  
10                   *ergy efficiency and renewable energy indus-*  
11                   *tries workforce. Grants shall be awarded*  
12                   *under this subparagraph so as to ensure ge-*  
13                   *ographic diversity with at least 2 grants*  
14                   *awarded to entities located in each of the 4*  
15                   *Petroleum Administration for Defense Dis-*  
16                   *tricts with no subdistricts, and at least 1*  
17                   *grant awarded to an entity located in each*  
18                   *of the subdistricts of the Petroleum Admin-*  
19                   *istration for Defense District with subdis-*  
20                   *tricts.*

21                   “(ii) *ELIGIBILITY.*—*To be eligible to*  
22                   *receive a grant under clause (i), an entity*  
23                   *shall be a nonprofit partnership that—*

24                   “(I) *includes the equal participa-*  
25                   *tion of industry, including public or*

1 *private employers, and labor organiza-*  
2 *tions, including joint labor-manage-*  
3 *ment training programs, and may in-*  
4 *clude workforce investment boards,*  
5 *community-based organizations, quali-*  
6 *fied service and conservation corps,*  
7 *educational institutions, small busi-*  
8 *nesses, cooperatives, State and local*  
9 *veterans agencies, and veterans service*  
10 *organizations; and*

11 *“(II) demonstrates—*

12 *“(aa) experience in imple-*  
13 *menting and operating worker*  
14 *skills training and education pro-*  
15 *grams;*

16 *“(bb) the ability to identify*  
17 *and involve in training programs*  
18 *carried out under this grant, tar-*  
19 *get populations of individuals*  
20 *who would benefit from training*  
21 *and be actively involved in activi-*  
22 *ties related to energy efficiency*  
23 *and renewable energy industries;*  
24 *and*

1                   “(cc) the ability to help indi-  
 2                   viduals achieve economic self-suf-  
 3                   ficiency.

4                   “(iii) *PRIORITY.*—Priority shall be  
 5                   given to partnerships which leverage addi-  
 6                   tional public and private resources to fund  
 7                   training programs, including cash or in-  
 8                   kind matches from participating employers.

9                   “(C) *STATE LABOR MARKET RESEARCH, IN-*  
 10                  *FORMATION, AND LABOR EXCHANGE RESEARCH*  
 11                  *PROGRAM.*—

12                  “(i) *IN GENERAL.*—Under the program  
 13                  established under paragraph (1), the Sec-  
 14                  retary shall award competitive grants to  
 15                  States to enable such States to administer  
 16                  labor market and labor exchange informa-  
 17                  tion programs that include the implementa-  
 18                  tion of the activities described in clause (ii),  
 19                  in coordination with the one-stop delivery  
 20                  system.

21                  “(ii) *ACTIVITIES.*—A State shall use  
 22                  amounts awarded under a grant under this  
 23                  subparagraph to provide funding to the  
 24                  State agency that administers the Wagner-  
 25                  Peyser Act and State unemployment com-

1            *pensation programs to carry out the fol-*  
2            *lowing activities using State agency merit*  
3            *staff:*

4                    *“(I) The identification of job*  
5                    *openings in the renewable energy and*  
6                    *energy efficiency sector.*

7                    *“(II) The administration of skill*  
8                    *and aptitude testing and assessment*  
9                    *for workers.*

10                   *“(III) The counseling, case man-*  
11                   *agement, and referral of qualified job*  
12                   *seekers to openings and training pro-*  
13                   *grams, including energy efficiency and*  
14                   *renewable energy training programs.*

15                   *“(D) STATE ENERGY TRAINING PARTNER-*  
16                   *SHIP PROGRAM.—*

17                   *“(i) IN GENERAL.—Under the program*  
18                   *established under paragraph (1), the Sec-*  
19                   *retary shall award competitive grants to*  
20                   *States to enable such States to administer*  
21                   *renewable energy and energy efficiency*  
22                   *workforce development programs that in-*  
23                   *clude the implementation of the activities*  
24                   *described in clause (ii).*

1           “(ii) *PARTNERSHIPS.*—A State shall  
2           *use amounts awarded under a grant under*  
3           *this subparagraph to award competitive*  
4           *grants to eligible State Energy Sector Part-*  
5           *nerships to enable such Partnerships to co-*  
6           *ordinate with existing apprenticeship and*  
7           *labor management training programs and*  
8           *implement training programs that lead to*  
9           *the economic self-sufficiency of trainees.*

10           “(iii) *ELIGIBILITY.*—To be eligible to  
11           *receive a grant under this subparagraph, a*  
12           *State Energy Sector Partnership shall—*

13                   “(I) *consist of nonprofit organiza-*  
14                   *tions that include equal participation*  
15                   *from industry, including public or pri-*  
16                   *vate nonprofit employers, and labor or-*  
17                   *ganizations, including joint labor-*  
18                   *management training programs, and*  
19                   *may include representatives from local*  
20                   *governments, the workforce investment*  
21                   *system, including one-stop career cen-*  
22                   *ters, community based organizations,*  
23                   *qualified service and conservation*  
24                   *corps, community colleges, and other*  
25                   *post-secondary institutions, small busi-*

1            *nesses, cooperatives, State and local*  
2            *veterans agencies, and veterans service*  
3            *organizations;*

4            *“(II) demonstrate experience in*  
5            *implementing and operating worker*  
6            *skills training and education pro-*  
7            *grams; and*

8            *“(III) demonstrate the ability to*  
9            *identify and involve in training pro-*  
10           *grams, target populations of workers*  
11           *who would benefit from training and*  
12           *be actively involved in activities re-*  
13           *lated to energy efficiency and renew-*  
14           *able energy industries.*

15           *“(iv) PRIORITY.—In awarding grants*  
16           *under this subparagraph, the Secretary*  
17           *shall give priority to States that dem-*  
18           *onstrate that activities under the grant—*

19           *“(I) meet national energy policies*  
20           *associated with energy efficiency, re-*  
21           *newable energy, and the reduction of*  
22           *emissions of greenhouse gases;*

23           *“(II) meet State energy policies*  
24           *associated with energy efficiency, re-*

1            *newable energy, and the reduction of*  
2            *emissions of greenhouse gases; and*

3            *“(III) leverage additional public*  
4            *and private resources to fund training*  
5            *programs, including cash or in-kind*  
6            *matches from participating employers.*

7            *“(v) COORDINATION.—A grantee under*  
8            *this subparagraph shall coordinate activi-*  
9            *ties carried out under the grant with exist-*  
10           *ing other appropriate training programs,*  
11           *including apprenticeship and labor man-*  
12           *agement training programs, including such*  
13           *activities referenced in paragraph (3)(A),*  
14           *and implement training programs that lead*  
15           *to the economic self-sufficiency of trainees.*

16           *“(E) PATHWAYS OUT OF POVERTY DEM-*  
17           *ONSTRATION PROGRAM.—*

18           *“(i) IN GENERAL.—Under the program*  
19           *established under paragraph (1), the Sec-*  
20           *retary shall award competitive grants of*  
21           *sufficient size to eligible entities to enable*  
22           *such entities to carry out training that*  
23           *leads to economic self-sufficiency. The Sec-*  
24           *retary shall give priority to entities that*  
25           *serve individuals in families with income of*

1           *less than 200 percent of the sufficiency*  
2           *standard for the local areas where the train-*  
3           *ing is conducted that specifies, as defined by*  
4           *the State, or where such standard is not es-*  
5           *tablished, the income needs of families, by*  
6           *family size, the number and ages of children*  
7           *in the family, and sub-State geographical*  
8           *considerations. Grants shall be awards to*  
9           *ensure geographic diversity.*

10           “(ii) *ELIGIBLE ENTITIES.—To be eligi-*  
11           *ble to receive a grant an entity shall be a*  
12           *partnership that—*

13                   “(I) *includes community-based*  
14                   *nonprofit organizations, educational*  
15                   *institutions with expertise in serving*  
16                   *low-income adults or youth, public or*  
17                   *private employers from the industry*  
18                   *sectors described in paragraph*  
19                   *(1)(B)(ii), and labor organizations*  
20                   *representing workers in such industry*  
21                   *sectors;*

22                   “(II) *demonstrates a record of*  
23                   *successful experience in implementing*  
24                   *and operating worker skills training*  
25                   *and education programs;*



1                   “(III)     coordinates     activities,  
2                   where appropriate, with the workforce  
3                   investment system; and

4                   “(IV) demonstrates the ability to  
5                   recruit individuals for training and to  
6                   support such individuals to successful  
7                   completion in training programs car-  
8                   ried out under this grant, targeting  
9                   populations of workers who are or will  
10                  be engaged in activities related to en-  
11                  ergy efficiency and renewable energy  
12                  industries.

13               “(iii)     PRIORITIES.—In     awarding  
14               grants under this paragraph, the Secretary  
15               shall give priority to applicants that—

16               “(I) target programs to benefit  
17               low-income workers, unemployed youth  
18               and adults, high school dropouts, or  
19               other underserved sectors of the work-  
20               force within areas of high poverty;

21               “(II) ensure that supportive serv-  
22               ices are integrated with education and  
23               training, and delivered by organiza-  
24               tions with direct access to and experi-  
25               ence with targeted populations;

1           “(III) leverage additional public  
 2           and private resources to fund training  
 3           programs, including cash or in-kind  
 4           matches from participating employers;

5           “(IV) involve employers and labor  
 6           organizations in the determination of  
 7           relevant skills and competencies and  
 8           ensure that the certificates or creden-  
 9           tials that result from the training are  
 10          employer-recognized;

11          “(V) deliver courses at alternative  
 12          times (such as evening and weekend  
 13          programs) and locations most conven-  
 14          ient and accessible to participants and  
 15          link adult remedial education with oc-  
 16          cupational skills training; and

17          “(VI) demonstrate substantial ex-  
 18          perience in administering local, mu-  
 19          nicipal, State, Federal, foundation, or  
 20          private entity grants.

21          “(iv) DATA COLLECTION.—Grantees  
 22          shall collect and report the following infor-  
 23          mation:

24               “(I) The number of participants.

1                   “(II) *The demographic character-*  
2                   *istics of participants, including race,*  
3                   *gender, age, parenting status, partici-*  
4                   *pation in other Federal programs, edu-*  
5                   *cation and literacy level at entry, sig-*  
6                   *nificant barriers to employment (such*  
7                   *as limited English proficiency, crimi-*  
8                   *nal record, addiction or mental health*  
9                   *problem requiring treatment, or mental*  
10                  *disability).*

11                  “(III) *The services received by*  
12                  *participants, including training, edu-*  
13                  *cation, and supportive services.*

14                  “(IV) *The amount of program*  
15                  *spending per participant.*

16                  “(V) *Program completion rates.*

17                  “(VI) *Factors determined as sig-*  
18                  *nificantly interfering with program*  
19                  *participation or completion.*

20                  “(VII) *The rate of Job placement*  
21                  *and the rate of employment retention*  
22                  *after 1 year.*

23                  “(VIII) *The average wage at*  
24                  *placement, including any benefits, and*

1                   *the rate of average wage increase after*  
 2                   *1 year.*

3                   “(IX) *Any post-employment sup-*  
 4                   *portive services provided.*

5                   *The Secretary shall assist grantees in the*  
 6                   *collection of data under this clause by mak-*  
 7                   *ing available, where practicable, low-cost*  
 8                   *means of tracking the labor market out-*  
 9                   *comes of participants, and by providing*  
 10                   *standardized reporting forms, where appro-*  
 11                   *priate.*

12                   “(3) *ACTIVITIES.—*

13                   “(A) *IN GENERAL.—Activities to be carried*  
 14                   *out under a program authorized by subpara-*  
 15                   *graph (B), (D), or (E) of paragraph (2) shall be*  
 16                   *coordinated with existing systems or providers,*  
 17                   *as appropriate. Such activities may include—*

18                   “(i) *occupational skills training, in-*  
 19                   *cluding curriculum development, on-the-job*  
 20                   *training, and classroom training;*

21                   “(ii) *safety and health training;*

22                   “(iii) *the provision of basic skills, lit-*  
 23                   *eracy, GED, English as a second language,*  
 24                   *and job readiness training;*

1           “(iv) individual referral and tuition  
 2           assistance for a community college training  
 3           program, or any training program leading  
 4           to an industry-recognized certificate;

5           “(v) internship programs in fields re-  
 6           lated to energy efficiency and renewable en-  
 7           ergy;

8           “(vi) customized training in conjunc-  
 9           tion with an existing registered apprentice-  
 10          ship program or labor-management part-  
 11          nership;

12          “(vii) incumbent worker and career  
 13          ladder training and skill upgrading and re-  
 14          training;

15          “(viii) the implementation of transi-  
 16          tional jobs strategies; and

17          “(ix) the provision of supportive serv-  
 18          ices.

19          “(B) *OUTREACH ACTIVITIES*.—In addition  
 20          to the activities authorized under subparagraph  
 21          (A), activities authorized for programs under  
 22          subparagraph (E) of paragraph (2) may include  
 23          the provision of outreach, recruitment, career  
 24          guidance, and case management services.

1           “(4)   WORKER   PROTECTIONS   AND   NON-  
2   DISCRIMINATION REQUIREMENTS.—

3           “(A) APPLICATION OF WIA.—*The provisions*  
4           *of sections 181 and 188 of the Workforce Invest-*  
5           *ment Act of 1998 (29 U.S.C. 2931 and 2938)*  
6           *shall apply to all programs carried out with as-*  
7           *istance under this subsection.*

8           “(B) CONSULTATION WITH LABOR ORGANI-  
9           ZATIONS.—*If a labor organization represents a*  
10          *substantial number of workers who are engaged*  
11          *in similar work or training in an area that is*  
12          *the same as the area that is proposed to be fund-*  
13          *ed under this Act, the labor organization shall be*  
14          *provided an opportunity to be consulted and to*  
15          *submit comments in regard to such a proposal.*

16          “(5) PERFORMANCE MEASURES.—

17          “(A) IN GENERAL.—*The Secretary shall ne-*  
18          *gotiate and reach agreement with the eligible en-*  
19          *tities that receive grants and assistance under*  
20          *this section on performance measures for the in-*  
21          *dicators of performance referred to in subpara-*  
22          *graphs (A) and (B) of section 136(b)(2) that will*  
23          *be used to evaluate the performance of the eligible*  
24          *entity in carrying out the activities described in*  
25          *subsection (e)(2). Each performance measure*

1       *shall consist of such an indicator of performance,*  
2       *and a performance level referred to in subpara-*  
3       *graph (B).*

4               “(B) *PERFORMANCE LEVELS.*—*The Sec-*  
5       *retary shall negotiate and reach agreement with*  
6       *the eligible entity regarding the levels of perform-*  
7       *ance expected to be achieved by the eligible entity*  
8       *on the indicators of performance.*

9               “(6) *REPORT.*—

10              “(A) *STATUS REPORT.*—*Not later than 18*  
11       *months after the date of enactment of the Green*  
12       *Jobs Act of 2007, the Secretary shall transmit a*  
13       *report to the Senate Committee on Energy and*  
14       *Natural Resources, the Senate Committee on*  
15       *Health, Education, Labor, and Pensions, the*  
16       *House Committee on Education and Labor, and*  
17       *the House Committee on Energy and Commerce*  
18       *on the training program established by this sub-*  
19       *section. The report shall include a description of*  
20       *the entities receiving funding and the activities*  
21       *carried out by such entities.*

22              “(B) *EVALUATION.*—*Not later than 3 years*  
23       *after the date of enactment of such Act, the Sec-*  
24       *retary shall transmit to the Senate Committee on*  
25       *Energy and Natural Resources, the Senate Com-*

1        *mittee on Health, Education, Labor, and Pen-*  
 2        *sions, the House Committee on Education and*  
 3        *Labor, and the House Committee on Energy and*  
 4        *Commerce an assessment of such program and*  
 5        *an evaluation of the activities carried out by en-*  
 6        *tities receiving funding from such program.*

7        “(7) *DEFINITION.*—As used in this subsection,  
 8        *the term ‘renewable energy’ has the meaning given*  
 9        *such term in section 203(b)(2) of the Energy Policy*  
 10        *Act of 2005 (Public Law 109–58).*

11        “(8) *AUTHORIZATION OF APPROPRIATIONS.*—  
 12        *There is authorized to be appropriated to carry out*  
 13        *this subsection, \$125,000,000 for each fiscal years, of*  
 14        *which—*

15                “(A) *not to exceed 20 percent of the amount*  
 16                *appropriated in each such fiscal year shall be*  
 17                *made available for, and shall be equally divided*  
 18                *between, national labor market research and in-*  
 19                *formation under paragraph (2)(A) and State*  
 20                *labor market information and labor exchange re-*  
 21                *search under paragraph (2)(C), and not more*  
 22                *than 2 percent of such amount shall be for the*  
 23                *evaluation and report required under paragraph*  
 24                *(4);*



“(B) 20 percent shall be dedicated to Pathways Out of Poverty Demonstration Programs under paragraph (2)(E); and

“(C) the remainder shall be divided equally between National Energy Partnership Training Grants under paragraph (2)(B) and State energy training partnership grants under paragraph (2)(D).”.

## **TITLE XI—ENERGY TRANSPORTATION AND INFRASTRUCTURE**

### **Subtitle A—Department of Transportation**

#### **SEC. 1101. OFFICE OF CLIMATE CHANGE AND ENVIRONMENT.**

(a) *IN GENERAL.*—Section 102 of title 49, United States Code, is amended—

(1) by redesignating subsection (g) as subsection (h); and

(2) by inserting after subsection (f) the following:

“(g) *OFFICE OF CLIMATE CHANGE AND ENVIRONMENT.*—

“(1) *ESTABLISHMENT.*—There is established in the Department an Office of Climate Change and Environment to plan, coordinate, and implement—

1           “(A) department-wide research, strategies,  
 2           and actions under the Department’s statutory  
 3           authority to reduce transportation-related energy  
 4           use and mitigate the effects of climate change;  
 5           and

6           “(B) department-wide research strategies  
 7           and actions to address the impacts of climate  
 8           change on transportation systems and infra-  
 9           structure.

10          “(2) CLEARINGHOUSE.—The Office shall estab-  
 11          lish a clearinghouse of solutions, including cost-effec-  
 12          tive congestion reduction approaches, to reduce air  
 13          pollution and transportation-related energy use and  
 14          mitigate the effects of climate change.”.

15          (b) COORDINATION.—The Office of Climate Change  
 16          and Environment of the Department of Transportation  
 17          shall coordinate its activities with the United States Global  
 18          Change Research Program.

19          (c) TRANSPORTATION SYSTEM’S IMPACT ON CLIMATE  
 20          CHANGE AND FUEL EFFICIENCY.—

21               (1) STUDY.—The Office of Climate Change and  
 22          Environment, in coordination with the Environ-  
 23          mental Protection Agency and in consultation with  
 24          the United States Global Change Research Program,  
 25          shall conduct a study to examine the impact of the

1     *Nation's transportation system on climate change and*  
2     *the fuel efficiency savings and clean air impacts of*  
3     *major transportation projects, to identify solutions to*  
4     *reduce air pollution and transportation-related en-*  
5     *ergy use and mitigate the effects of climate change,*  
6     *and to examine the potential fuel savings that could*  
7     *result from changes in the current transportation sys-*  
8     *tem and through the use of intelligent transportation*  
9     *systems that help businesses and consumers to plan*  
10    *their travel and avoid delays, including Web-based*  
11    *real-time transit information systems, congestion in-*  
12    *formation systems, carpool information systems,*  
13    *parking information systems, freight route manage-*  
14    *ment systems, and traffic management systems.*

15           (2) *REPORT.*—*Not later than one year after the*  
16    *date of enactment of this Act, the Secretary of Trans-*  
17    *portation, in coordination with the Administrator of*  
18    *the Environmental Protection Agency, shall transmit*  
19    *to the Committee on Transportation and Infrastruc-*  
20    *ture and the Committee on Energy and Commerce of*  
21    *the House of Representatives and the Committee on*  
22    *Commerce, Science, and Transportation and the Com-*  
23    *mittee on Environment and Public Works of the Sen-*  
24    *ate a report that contains the results of the study re-*  
25    *quired under this section.*

1       (d) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
 2 *authorized to be appropriated to the Secretary of Transpor-*  
 3 *tation for the Office of Climate Change and Environment*  
 4 *to carry out its duties under section 102(g) of title 49,*  
 5 *United States Code (as amended by this Act), such sums*  
 6 *as may be necessary for fiscal years 2008 through 2011.*

## 7                   ***Subtitle B—Railroads***

### 8   ***SEC. 1111. ADVANCED TECHNOLOGY LOCOMOTIVE GRANT*** 9                   ***PILOT PROGRAM.***

10       (a) *IN GENERAL.*—*The Secretary of Transportation,*  
 11 *in consultation with the Administrator of the Environ-*  
 12 *mental Protection Agency, shall establish and carry out a*  
 13 *pilot program for making grants to railroad carriers (as*  
 14 *defined in section 20102 of title 49, United States Code)*  
 15 *and State and local governments—*

16               (1) *for assistance in purchasing hybrid or other*  
 17 *energy-efficient locomotives, including hybrid switch*  
 18 *and generator-set locomotives; and*

19               (2) *to demonstrate the extent to which such loco-*  
 20 *motives increase fuel economy, reduce emissions, and*  
 21 *lower costs of operation.*

22       (b) *LIMITATION.*—*Notwithstanding subsection (a), no*  
 23 *grant under this section may be used to fund the costs of*  
 24 *emissions reductions that are mandated under Federal law.*

1       (c) *GRANT CRITERIA.*—*In selecting applicants for*  
 2 *grants under this section, the Secretary of Transportation*  
 3 *shall consider—*

4           (1) *the level of energy efficiency that would be*  
 5 *achieved by the proposed project;*

6           (2) *the extent to which the proposed project*  
 7 *would assist in commercial deployment of hybrid or*  
 8 *other energy-efficient locomotive technologies;*

9           (3) *the extent to which the proposed project com-*  
 10 *plements other private or governmental partnership*  
 11 *efforts to improve air quality or fuel efficiency in a*  
 12 *particular area; and*

13           (4) *the extent to which the applicant dem-*  
 14 *onstrates innovative strategies and a financial com-*  
 15 *mitment to increasing energy efficiency and reducing*  
 16 *greenhouse gas emissions of its railroad operations.*

17       (d) *COMPETITIVE GRANT SELECTION PROCESS.*—

18           (1) *APPLICATIONS.*—*A railroad carrier or State*  
 19 *or local government seeking a grant under this section*  
 20 *shall submit for approval by the Secretary of Trans-*  
 21 *portation an application for the grant containing*  
 22 *such information as the Secretary of Transportation*  
 23 *may require.*

24           (2) *COMPETITIVE SELECTION.*—*The Secretary of*  
 25 *Transportation shall conduct a national solicitation*

1       for applications for grants under this section and  
2       shall select grantees on a competitive basis.

3       (e) *FEDERAL SHARE*.—The Federal share of the cost  
4 of a project under this section shall not exceed 80 percent  
5 of the project cost.

6       (f) *REPORT*.—Not later than 3 years after the date of  
7 enactment of this Act, the Secretary of Transportation shall  
8 submit to Congress a report on the results of the pilot pro-  
9 gram carried out under this section.

10       (g) *AUTHORIZATION OF APPROPRIATIONS*.—There is  
11 authorized to be appropriated to the Secretary of Transpor-  
12 tation \$10,000,000 for each of the fiscal years 2008 through  
13 2011 to carry out this section. Such funds shall remain  
14 available until expended.

15 **SEC. 1112. CAPITAL GRANTS FOR CLASS II AND CLASS III**  
16 **RAILROADS.**

17       (a) *AMENDMENT*.—Chapter 223 of title 49, United  
18 States Code, is amended to read as follows:

19       **“CHAPTER 223—CAPITAL GRANTS FOR**  
20 **CLASS II AND CLASS III RAILROADS**

“Sec.

“22301. Capital grants for class II and class III railroads.

21 **“§ 22301. Capital grants for class II and class III rail-**  
22 **roads**

23       “(a) *ESTABLISHMENT OF PROGRAM*.—

1           “(1) *ESTABLISHMENT.*—*The Secretary of Trans-*  
 2           *portation shall establish a program for making cap-*  
 3           *ital grants to class II and class III railroads. Such*  
 4           *grants shall be for projects in the public interest*  
 5           *that—*

6                     “(A)(i) *rehabilitate, preserve, or improve*  
 7                     *railroad track (including roadbed, bridges, and*  
 8                     *related track structures) used primarily for*  
 9                     *freight transportation;*

10                    “(ii) *facilitate the continued or greater use*  
 11                    *of railroad transportation for freight shipments;*  
 12                    *and*

13                    “(iii) *reduce the use of less fuel efficient*  
 14                    *modes of transportation in the transportation of*  
 15                    *such shipments; and*

16                    “(B) *demonstrate innovative technologies*  
 17                    *and advanced research and development that in-*  
 18                    *crease fuel economy, reduce greenhouse gas emis-*  
 19                    *sions, and lower the costs of operation.*

20           “(2) *PROVISION OF GRANTS.*—*Grants may be*  
 21           *provided under this chapter—*

22                    “(A) *directly to the class II or class III*  
 23                    *railroad; or*

1                   “(B) *with the concurrence of the class II or*  
 2                   *class III railroad, to a State or local govern-*  
 3                   *ment.*

4                   “(3) *STATE COOPERATION.—Class II and class*  
 5                   *III railroad applicants for a grant under this chapter*  
 6                   *are encouraged to utilize the expertise and assistance*  
 7                   *of State transportation agencies in applying for and*  
 8                   *administering such grants. State transportation agen-*  
 9                   *cies are encouraged to provide such expertise and as-*  
 10                   *sistance to such railroads.*

11                   “(4) *REGULATIONS.—Not later than October 1,*  
 12                   *2008, the Secretary shall issue final regulations to*  
 13                   *implement the program under this section.*

14                   “(b) *MAXIMUM FEDERAL SHARE.—The maximum*  
 15                   *Federal share for carrying out a project under this section*  
 16                   *shall be 80 percent of the project cost. The non-Federal share*  
 17                   *may be provided by any non-Federal source in cash, equip-*  
 18                   *ment, or supplies. Other in-kind contributions may be ap-*  
 19                   *proved by the Secretary on a case-by-case basis consistent*  
 20                   *with this chapter.*

21                   “(c) *USE OF FUNDS.—Grants provided under this sec-*  
 22                   *tion shall be used to implement track capital projects as*  
 23                   *soon as possible. In no event shall grant funds be contrac-*  
 24                   *tually obligated for a project later than the end of the third*  
 25                   *Federal fiscal year following the year in which the grant*



1 *was awarded. Any funds not so obligated by the end of such*  
 2 *fiscal year shall be returned to the Secretary for realloca-*  
 3 *tion.*

4 “(d) *EMPLOYEE PROTECTION.*—*The Secretary shall*  
 5 *require as a condition of any grant made under this section*  
 6 *that the recipient railroad provide a fair arrangement at*  
 7 *least as protective of the interests of employees who are af-*  
 8 *ected by the project to be funded with the grant as the terms*  
 9 *imposed under section 11326(a), as in effect on the date*  
 10 *of the enactment of this chapter.*

11 “(e) *LABOR STANDARDS.*—

12 “(1) *PREVAILING WAGES.*—*The Secretary shall*  
 13 *ensure that laborers and mechanics employed by con-*  
 14 *tractors and subcontractors in construction work fi-*  
 15 *nanced by a grant made under this section will be*  
 16 *paid wages not less than those prevailing on similar*  
 17 *construction in the locality, as determined by the Sec-*  
 18 *retary of Labor under subchapter IV of chapter 31 of*  
 19 *title 40 (commonly known as the ‘Davis-Bacon Act’).*  
 20 *The Secretary shall make a grant under this section*  
 21 *only after being assured that required labor standards*  
 22 *will be maintained on the construction work.*

23 “(2) *WAGE RATES.*—*Wage rates in a collective*  
 24 *bargaining agreement negotiated under the Railway*  
 25 *Labor Act (45 U.S.C. 151 et seq.) are deemed for pur-*

1        *poses of this subsection to comply with the subchapter*  
 2        *IV of chapter 31 of title 40.*

3        “(f) *STUDY.*—*The Secretary shall conduct a study of*  
 4        *the projects carried out with grant assistance under this*  
 5        *section to determine the extent to which the program helps*  
 6        *promote a reduction in fuel use associated with the trans-*  
 7        *portation of freight and demonstrates innovative tech-*  
 8        *nologies that increase fuel economy, reduce greenhouse gas*  
 9        *emissions, and lower the costs of operation. Not later than*  
 10       *March 31, 2009, the Secretary shall submit a report to the*  
 11       *Committee on Transportation and Infrastructure of the*  
 12       *House of Representatives and the Committee on Commerce,*  
 13       *Science, and Transportation of the Senate on the study, in-*  
 14       *cluding any recommendations the Secretary considers ap-*  
 15       *propriate regarding the program.*

16       “(g) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 17       *authorized to be appropriated to the Secretary \$50,000,000*  
 18       *for each of fiscal years 2008 through 2011 for carrying out*  
 19       *this section.”.*

20       (b) *CLERICAL AMENDMENT.*—*The item relating to*  
 21       *chapter 223 in the table of chapters of subtitle V of title*  
 22       *49, United States Code, is amended to read as follows:*

“223. *CAPITAL GRANTS FOR CLASS II AND CLASS III RAIL-*  
*ROADS* ..... 22301”.

1 ***Subtitle C—Marine Transportation***

2 ***SEC. 1121. SHORT SEA TRANSPORTATION INITIATIVE.***

3 *(a) IN GENERAL.—Title 46, United States Code, is*  
 4 *amended by adding after chapter 555 the following:*

5 ***“CHAPTER 556—SHORT SEA***  
 6 ***TRANSPORTATION***

*“Sec. 55601. Short sea transportation program.*

*“Sec. 55602. Cargo and shippers.*

*“Sec. 55603. Interagency coordination.*

*“Sec. 55604. Research on short sea transportation.*

*“Sec. 55605. Short sea transportation defined.*

7 ***“§ 55601. Short sea transportation program***

8 *“(a) ESTABLISHMENT.—The Secretary of Transpor-*  
 9 *tation shall establish a short sea transportation program*  
 10 *and designate short sea transportation projects to be con-*  
 11 *ducted under the program to mitigate landside congestion.*

12 *“(b) PROGRAM ELEMENTS.—The program shall en-*  
 13 *courage the use of short sea transportation through the de-*  
 14 *velopment and expansion of—*

15 *“(1) documented vessels;*

16 *“(2) shipper utilization;*

17 *“(3) port and landside infrastructure; and*

18 *“(4) marine transportation strategies by State*  
 19 *and local governments.*

20 *“(c) SHORT SEA TRANSPORTATION ROUTES.—The*  
 21 *Secretary shall designate short sea transportation routes as*  
 22 *extensions of the surface transportation system to focus pub-*

1 *lic and private efforts to use the waterways to relieve*  
 2 *landside congestion along coastal corridors. The Secretary*  
 3 *may collect and disseminate data for the designation and*  
 4 *delineation of short sea transportation routes.*

5       “(d) *PROJECT DESIGNATION.*—*The Secretary may*  
 6 *designate a project to be a short sea transportation project*  
 7 *if the Secretary determines that the project may—*

8               “(1) *offer a waterborne alternative to available*  
 9 *landside transportation services using documented*  
 10 *vessels; and*

11              “(2) *provide transportation services for pas-*  
 12 *sengers or freight (or both) that may reduce conges-*  
 13 *tion on landside infrastructure using documented ves-*  
 14 *sels.*

15       “(e) *ELEMENTS OF PROGRAM.*—*For a short sea trans-*  
 16 *portation project designated under this section, the Sec-*  
 17 *retary may—*

18              “(1) *promote the development of short sea trans-*  
 19 *portation services;*

20              “(2) *coordinate, with ports, State departments of*  
 21 *transportation, localities, other public agencies, and*  
 22 *the private sector and on the development of landside*  
 23 *facilities and infrastructure to support short sea*  
 24 *transportation services; and*

1           “(3) develop performance measures for the short  
2           sea transportation program.

3           “(f) *MULTISTATE, STATE AND REGIONAL TRANSPOR-*  
4 *TATION PLANNING.*—*The Secretary, in consultation with*  
5 *Federal entities and State and local governments, shall de-*  
6 *velop strategies to encourage the use of short sea transpor-*  
7 *tation for transportation of passengers and cargo. The Sec-*  
8 *retary shall—*

9           “(1) assess the extent to which States and local  
10          governments include short sea transportation and  
11          other marine transportation solutions in their trans-  
12          portation planning;

13          “(2) encourage State departments of transpor-  
14          tation to develop strategies, where appropriate, to in-  
15          corporate short sea transportation, ferries, and other  
16          marine transportation solutions for regional and  
17          interstate transport of freight and passengers in their  
18          transportation planning; and

19          “(3) encourage groups of States and multi-State  
20          transportation entities to determine how short sea  
21          transportation can address congestion, bottlenecks,  
22          and other interstate transportation challenges.

23   **“§ 55602. Cargo and shippers**

24          “(a) *MEMORANDUMS OF AGREEMENT.*—*The Secretary*  
25 *of Transportation shall enter into memorandums of under-*

1 *standing with the heads of other Federal entities to trans-*  
 2 *port federally owned or generated cargo using a short sea*  
 3 *transportation project designated under section 55601 when*  
 4 *practical or available.*

5 “(b) *SHORT-TERM INCENTIVES.*—*The Secretary shall*  
 6 *consult shippers and other participants in transportation*  
 7 *logistics and develop proposals for short-term incentives to*  
 8 *encourage the use of short sea transportation.*

9 **“§ 55603. Interagency coordination**

10 “*The Secretary of Transportation shall establish a*  
 11 *board to identify and seek solutions to impediments hin-*  
 12 *dering effective use of short sea transportation. The board*  
 13 *shall include representatives of the Environmental Protec-*  
 14 *tion Agency and other Federal, State, and local govern-*  
 15 *mental entities and private sector entities.*

16 **“§ 55604. Research on short sea transportation**

17 “*The Secretary of Transportation, in consultation*  
 18 *with the Administrator of the Environmental Protection*  
 19 *Agency, may conduct research on short sea transportation,*  
 20 *regarding—*

21 “(1) *the environmental and transportation bene-*  
 22 *fits to be derived from short sea transportation alter-*  
 23 *natives for other forms of transportation;*

24 “(2) *technology, vessel design, and other im-*  
 25 *provements that would reduce emissions, increase fuel*

1 *economy, and lower costs of short sea transportation*  
 2 *and increase the efficiency of intermodal transfers;*  
 3 *and*

4 *“(3) solutions to impediments to short sea trans-*  
 5 *portation projects designated under section 55601.*

6 **“§ 55605. Short sea transportation defined**

7 *“In this chapter, the term ‘short sea transportation’*  
 8 *means the carriage by vessel of cargo—*

9 *“(1) that is—*

10 *“(A) contained in intermodal cargo con-*  
 11 *tainers and loaded by crane on the vessel; or*

12 *“(B) loaded on the vessel by means of*  
 13 *wheeled technology; and*

14 *“(2) that is—*

15 *“(A) loaded at a port in the United States*  
 16 *and unloaded either at another port in the*  
 17 *United States or at a port in Canada located in*  
 18 *the Great Lakes Saint Lawrence Seaway Sys-*  
 19 *tem; or*

20 *“(B) loaded at a port in Canada located in*  
 21 *the Great Lakes Saint Lawrence Seaway System*  
 22 *and unloaded at a port in the United States.”.*

23 *(b) CLERICAL AMENDMENT.—The table of chapters at*  
 24 *the beginning of subtitle V of such title is amended by in-*  
 25 *serting after the item relating to chapter 555 the following:*

**“556. Short Sea Transportation .....55601”.**

1       (c) *REGULATIONS.*—

2               (1) *INTERIM REGULATIONS.*—Not later than 90  
3       days after the date of enactment of this Act, the Sec-  
4       retary of Transportation shall issue temporary regu-  
5       lations to implement the program under this section.  
6       Subchapter II of chapter 5 of title 5, United States  
7       Code, does not apply to a temporary regulation issued  
8       under this paragraph or to an amendment to such a  
9       temporary regulation.

10              (2) *FINAL REGULATIONS.*—Not later than Octo-  
11       ber 1, 2008, the Secretary of Transportation shall  
12       issue final regulations to implement the program  
13       under this section.

14   **SEC. 1122. SHORT SEA SHIPPING ELIGIBILITY FOR CAPITAL**  
15                               **CONSTRUCTION FUND.**

16       (a) *DEFINITION OF QUALIFIED VESSEL.*—Section  
17   53501 of title 46, United States Code, is amended—

18              (1) in paragraph (5)(A)(iii) by striking “or non-  
19       contiguous domestic” and inserting “noncontiguous  
20       domestic, or short sea transportation trade”; and

21              (2) by inserting after paragraph (6) the fol-  
22       lowing:

23              “(7) *SHORT SEA TRANSPORTATION TRADE.*—The  
24       term ‘short sea transportation trade’ means the car-  
25       riage by vessel of cargo—



1 “(A) that is—

2 “(i) contained in intermodal cargo  
3 containers and loaded by crane on the ves-  
4 sel; or

5 “(ii) loaded on the vessel by means of  
6 wheeled technology; and

7 “(B) that is—

8 “(i) loaded at a port in the United  
9 States and unloaded either at another port  
10 in the United States or at a port in Canada  
11 located in the Great Lakes Saint Lawrence  
12 Seaway System; or

13 “(ii) loaded at a port in Canada lo-  
14 cated in the Great Lakes Saint Lawrence  
15 Seaway System and unloaded at a port in  
16 the United States.”.

17 (b) *ALLOWABLE PURPOSE.*—Section 53503(b) of such  
18 title is amended by striking “or noncontiguous domestic  
19 trade” and inserting “noncontiguous domestic, or short sea  
20 transportation trade”.

21 **SEC. 1123. SHORT SEA TRANSPORTATION REPORT.**

22 Not later than one year after the date of enactment  
23 of this Act, the Secretary of Transportation, in consultation  
24 with the Administrator of the Environmental Protection  
25 Agency, shall submit to the Committee on Transportation

1 *and Infrastructure of the House of Representatives and the*  
 2 *Committee on Commerce, Science, and Transportation of*  
 3 *the Senate a report on the short sea transportation program*  
 4 *established under the amendments made by section 1121.*  
 5 *The report shall include a description of the activities con-*  
 6 *ducted under the program, and any recommendations for*  
 7 *further legislative or administrative action that the Sec-*  
 8 *retary of Transportation considers appropriate.*

### 9 ***Subtitle D—Highways***

#### 10 ***SEC. 1131. INCREASED FEDERAL SHARE FOR CMAQ*** 11 ***PROJECTS.***

12 *Section 120(c) of title 23, United States Code, is*  
 13 *amended—*

14 *(1) in the subsection heading by striking “FOR*  
 15 *CERTAIN SAFETY PROJECTS”;*

16 *(2) by striking “The Federal share” and insert-*  
 17 *ing the following:*

18 *“(1) CERTAIN SAFETY PROJECTS.—The Federal*  
 19 *share”; and*

20 *(3) by adding at the end the following:*

21 *“(2) CMAQ PROJECTS.—The Federal share pay-*  
 22 *able on account of a project or program carried out*  
 23 *under section 149 with funds obligated in fiscal year*  
 24 *2008 or 2009, or both, shall be not less than 80 per-*

1        *cent and, at the discretion of the State, may be up*  
2        *to 100 percent of the cost thereof.”.*

3    **SEC. 1132. DISTRIBUTION OF RESCISSIONS.**

4        (a) *IN GENERAL.*—Any unobligated balances of  
5        amounts that are appropriated from the Highway Trust  
6        Fund for a fiscal year, and apportioned under chapter 1  
7        of title 23, United States Code, before, on, or after the date  
8        of enactment of this Act and that are rescinded in fiscal  
9        year 2008 or fiscal year 2009 shall be distributed by the  
10       Secretary of Transportation within each State (as defined  
11       in section 101 of such title) among all programs for which  
12       funds are apportioned under such chapter for such fiscal  
13       year, to the extent sufficient funds remain available for obli-  
14       gation, in the ratio that the amount of funds apportioned  
15       for each program under such chapter for such fiscal year,  
16       bears to the amount of funds apportioned for all such pro-  
17       grams under such chapter for such fiscal year.

18       (b) *ADJUSTMENTS.*—A State may make adjustments  
19       to the distribution of a rescission within the State for a  
20       fiscal year under subsection (a) by transferring the amounts  
21       to be rescinded among the programs for which funds are  
22       apportioned under chapter 1 of title 23, United States Code,  
23       for such fiscal year, except that in making such adjustments  
24       the State may not rescind from any such program more  
25       than 110 percent of the funds to be rescinded from the pro-

1 gram for the fiscal year as determined by the Secretary of  
 2 Transportation under subsection (a).

3 (c) *TREATMENT OF TRANSPORTATION ENHANCEMENT*  
 4 *SET-ASIDE AND FUNDS SUBALLOCATED TO SUBSTATE*  
 5 *AREAS.*—Funds set aside under sections 133(d)(2) and  
 6 133(d)(3) of title 23, United States Code, shall be treated  
 7 as being apportioned under chapter 1 of such title for pur-  
 8 poses of subsection (a).

9 **SEC. 1133. SENSE OF CONGRESS REGARDING USE OF COM-**  
 10 **plete Streets Design Techniques.**

11 *It is the sense of Congress that in constructing new*  
 12 *roadways or rehabilitating existing facilities, State and*  
 13 *local governments should consider policies designed to ac-*  
 14 *commodate all users, including motorists, pedestrians, cy-*  
 15 *clists, transit riders, and people of all ages and abilities,*  
 16 *in order to—*

17 (1) *serve all surface transportation users by cre-*  
 18 *ating a more interconnected and intermodal system;*

19 (2) *create more viable transportation options;*  
 20 *and*

21 (3) *facilitate the use of environmentally friendly*  
 22 *options, such as public transportation, walking, and*  
 23 *bicycling.*

***TITLE XII—SMALL BUSINESS  
ENERGY PROGRAMS***

***SEC. 1201. EXPRESS LOANS FOR RENEWABLE ENERGY AND  
ENERGY EFFICIENCY.***

*Section 7(a)(31) of the Small Business Act (15 U.S.C. 636(a)(31)) is amended by adding at the end the following:*

*“(F) EXPRESS LOANS FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY.—*

*“(i) DEFINITIONS.—In this subparagraph—*

*“(I) the term ‘biomass’—*

*“(aa) means any organic material that is available on a renewable or recurring basis, including—*

*“(AA) agricultural crops;*

*“(BB) trees grown for energy production;*

*“(CC) wood waste and wood residues;*

*“(DD) plants (including aquatic plants and grasses);*

*“(EE) residues;*

*“(FF) fibers;*

1                   “(GG) animal wastes  
2                   and other waste materials;  
3                   and

4                   “(HH) fats, oils, and  
5                   greases (including recycled  
6                   fats, oils, and greases); and

7                   “(bb) does not include—

8                   “(AA) paper that is  
9                   commonly recycled; or

10                  “(BB) unsegregated  
11                  solid waste;

12                  “(II) the term ‘energy efficiency  
13                  project’ means the installation or up-  
14                  grading of equipment that results in a  
15                  significant reduction in energy usage;  
16                  and

17                  “(III) the term ‘renewable energy  
18                  system’ means a system of energy de-  
19                  rived from—

20                  “(aa) a wind, solar, biomass  
21                  (including biodiesel), or geo-  
22                  thermal source; or

23                  “(bb) hydrogen derived from  
24                  biomass or water using an energy  
25                  source described in item (aa).

1 “(ii) *LOANS.*—*The Administrator may*  
 2 *make a loan under the Express Loan Pro-*  
 3 *gram for the purpose of—*

4 “(I) *purchasing a renewable en-*  
 5 *ergy system; or*

6 “(II) *carrying out an energy effi-*  
 7 *ciency project for a small business con-*  
 8 *cern.*”.

9 ***SEC. 1202. PILOT PROGRAM FOR REDUCED 7(a) FEES FOR***  
 10 ***PURCHASE OF ENERGY EFFICIENT TECH-***  
 11 ***NOLOGIES.***

12 *Section 7(a) of the Small Business Act (15 U.S.C.*  
 13 *636(a)) is amended by adding at the end the following:*

14 “(32) *LOANS FOR ENERGY EFFICIENT TECH-*  
 15 *NOLOGIES.*—

16 “(A) *DEFINITIONS.*—*In this paragraph—*

17 “(i) *the term ‘cost’ has the meaning*  
 18 *given that term in section 502 of the Fed-*  
 19 *eral Credit Reform Act of 1990 (2 U.S.C.*  
 20 *661a);*

21 “(ii) *the term ‘covered energy efficiency*  
 22 *loan’ means a loan—*

23 “(I) *made under this subsection;*  
 24 *and*

1                   “(II) the proceeds of which are  
2                   used to purchase energy efficient de-  
3                   signs, equipment, or fixtures, or to re-  
4                   duce the energy consumption of the  
5                   borrower by 10 percent or more; and

6                   “(iii) the term ‘pilot program’ means  
7                   the pilot program established under sub-  
8                   paragraph (B)

9                   “(B) *ESTABLISHMENT.*—The Administrator  
10                  shall establish and carry out a pilot program  
11                  under which the Administrator shall reduce the  
12                  fees for covered energy efficiency loans.

13                  “(C) *DURATION.*—The pilot program shall  
14                  terminate at the end of the second full fiscal year  
15                  after the date that the Administrator establishes  
16                  the pilot program.

17                  “(D) *MAXIMUM PARTICIPATION.*—A covered  
18                  energy efficiency loan shall include the max-  
19                  imum participation levels by the Administrator  
20                  permitted for loans made under this subsection.

21                  “(E) *FEES.*—

22                         “(i) *IN GENERAL.*—The fee on a cov-  
23                         ered energy efficiency loan shall be equal to  
24                         50 percent of the fee otherwise applicable to  
25                         that loan under paragraph (18).



1                   “(ii) *WAIVER.—The Administrator*  
2                   *may waive clause (i) for a fiscal year if—*

3                   “(I) *for the fiscal year before that*  
4                   *fiscal year, the annual rate of default*  
5                   *of covered energy efficiency loans ex-*  
6                   *ceeds that of loans made under this*  
7                   *subsection that are not covered energy*  
8                   *efficiency loans;*

9                   “(II) *the cost to the Administra-*  
10                   *tion of making loans under this sub-*  
11                   *section is greater than zero and such*  
12                   *cost is directly attributable to the cost*  
13                   *of making covered energy efficiency*  
14                   *loans; and*

15                   “(III) *no additional sources of*  
16                   *revenue authority are available to re-*  
17                   *duce the cost of making loans under*  
18                   *this subsection to zero.*

19                   “(iii) *EFFECT OF WAIVER.—If the Ad-*  
20                   *ministrator waives the reduction of fees*  
21                   *under clause (ii), the Administrator—*

22                   “(I) *shall not assess or collect fees*  
23                   *in an amount greater than necessary*  
24                   *to ensure that the cost of the program*

1           *under this subsection is not greater*  
 2           *than zero; and*

3           “(II) *shall reinstate the fee reduc-*  
 4           *tions under clause (i) when the condi-*  
 5           *tions in clause (ii) no longer apply.*

6           “(iv) *NO INCREASE OF FEES.—The Ad-*  
 7           *ministrator shall not increase the fees under*  
 8           *paragraph (18) on loans made under this*  
 9           *subsection that are not covered energy effi-*  
 10           *ciency loans as a direct result of the pilot*  
 11           *program.*

12           “(F) *GAO REPORT.—*

13           “(i) *IN GENERAL.—Not later than 1*  
 14           *year after the date that the pilot program*  
 15           *terminates, the Comptroller General of the*  
 16           *United States shall submit to the Committee*  
 17           *on Small Business of the House of Rep-*  
 18           *resentatives and the Committee on Small*  
 19           *Business and Entrepreneurship of the Sen-*  
 20           *ate a report on the pilot program.*

21           “(ii) *CONTENTS.—The report sub-*  
 22           *mitted under clause (i) shall include—*

23           “(I) *the number of covered energy*  
 24           *efficiency loans for which fees were re-*  
 25           *duced under the pilot program;*

1                   “(II) a description of the energy  
2                   efficiency savings with the pilot pro-  
3                   gram;

4                   “(III) a description of the impact  
5                   of the pilot program on the program  
6                   under this subsection;

7                   “(IV) an evaluation of the efficacy  
8                   and potential fraud and abuse of the  
9                   pilot program; and

10                  “(V) recommendations for improv-  
11                  ing the pilot program.”.

12 **SEC. 1203. SMALL BUSINESS ENERGY EFFICIENCY.**

13           (a) *DEFINITIONS.*—In this section—

14                   (1) the terms “Administration” and “Adminis-  
15                   trator” mean the Small Business Administration and  
16                   the Administrator thereof, respectively;

17                   (2) the term “association” means the association  
18                   of small business development centers established  
19                   under section 21(a)(3)(A) of the Small Business Act  
20                   (15 U.S.C. 648(a)(3)(A));

21                   (3) the term “disability” has the meaning given  
22                   that term in section 3 of the Americans with Disabil-  
23                   ities Act of 1990 (42 U.S.C. 12102);

1           (4) the term “Efficiency Program” means the  
2           *Small Business Energy Efficiency Program* estab-  
3           lished under subsection (c)(1);

4           (5) the term “electric utility” has the meaning  
5           given that term in section 3 of the *Public Utility Reg-*  
6           *ulatory Policies Act of 1978* (16 U.S.C. 2602);

7           (6) the term “high performance green building”  
8           has the meaning given that term in section 401;

9           (7) the term “on-bill financing” means a low in-  
10          terest or no interest financing agreement between a  
11          small business concern and an electric utility for the  
12          purchase or installation of equipment, under which  
13          the regularly scheduled payment of that small busi-  
14          ness concern to that electric utility is not reduced by  
15          the amount of the reduction in cost attributable to the  
16          new equipment and that amount is credited to the  
17          electric utility, until the cost of the purchase or in-  
18          stallation is repaid;

19          (8) the term “small business concern” has the  
20          same meaning as in section 3 of the *Small Business*  
21          *Act* (15 U.S.C. 632);

22          (9) the term “small business development center”  
23          means a small business development center described  
24          in section 21 of the *Small Business Act* (15 U.S.C.  
25          648);

1           (10) the term “telecommuting” means the use of  
 2           telecommunications to perform work functions under  
 3           circumstances which reduce or eliminate the need to  
 4           commute;

5           (11) the term “Telecommuting Pilot Program”  
 6           means the pilot program established under subsection  
 7           (d)(1)(A); and

8           (12) the term “veteran” has the meaning given  
 9           that term in section 101 of title 38, United States  
 10          Code.

11          (b) *IMPLEMENTATION OF SMALL BUSINESS ENERGY*  
 12          *EFFICIENCY PROGRAM.*—

13           (1) *IN GENERAL.*—Not later than 90 days after  
 14           the date of enactment of this Act, the Administrator  
 15           shall promulgate final rules establishing the Govern-  
 16           ment-wide program authorized under subsection (d)  
 17           of section 337 of the Energy Policy and Conservation  
 18           Act (42 U.S.C. 6307) that ensure compliance with  
 19           that subsection by not later than 6 months after such  
 20           date of enactment.

21           (2) *PROGRAM REQUIRED.*—The Administrator  
 22           shall develop and coordinate a Government-wide pro-  
 23           gram, building on the Energy Star for Small Busi-  
 24           ness program, to assist small business concerns in—

25                   (A) becoming more energy efficient;

1                   (B) understanding the cost savings from  
2                   improved energy efficiency; and

3                   (C) identifying financing options for energy  
4                   efficiency upgrades.

5                   (3) CONSULTATION AND COOPERATION.—The  
6                   program required by paragraph (2) shall be developed  
7                   and coordinated—

8                   (A) in consultation with the Secretary of  
9                   Energy and the Administrator of the Environ-  
10                  mental Protection Agency; and

11                  (B) in cooperation with any entities the Ad-  
12                  ministrator considers appropriate, such as in-  
13                  dustry trade associations, industry members, and  
14                  energy efficiency organizations.

15                  (4) AVAILABILITY OF INFORMATION.—The Ad-  
16                  ministrator shall make available the information and  
17                  materials developed under the program required by  
18                  paragraph (2) to—

19                  (A) small business concerns, including  
20                  smaller design, engineering, and construction  
21                  firms; and

22                  (B) other Federal programs for energy effi-  
23                  ciency, such as the Energy Star for Small Busi-  
24                  ness program.

25                  (5) STRATEGY AND REPORT.—

1           (A) *STRATEGY REQUIRED.*—*The Adminis-*  
 2           *trator shall develop a strategy to educate, encour-*  
 3           *age, and assist small business concerns in adopt-*  
 4           *ing energy efficient building fixtures and equip-*  
 5           *ment.*

6           (B) *REPORT.*—*Not later than December 31,*  
 7           *2008, the Administrator shall submit to Congress*  
 8           *a report containing a plan to implement the*  
 9           *strategy developed under subparagraph (A).*

10       (c) *SMALL BUSINESS SUSTAINABILITY INITIATIVE.*—

11           (1) *AUTHORITY.*—*The Administrator shall estab-*  
 12           *lish a Small Business Energy Efficiency Program to*  
 13           *provide energy efficiency assistance to small business*  
 14           *concerns through small business development centers.*

15           (2) *SMALL BUSINESS DEVELOPMENT CENTERS.*—

16           (A) *IN GENERAL.*—*In carrying out the Effi-*  
 17           *ciency Program, the Administrator shall enter*  
 18           *into agreements with small business development*  
 19           *centers under which such centers shall—*

20                   (i) *provide access to information and*  
 21                   *resources on energy efficiency practices, in-*  
 22                   *cluding on-bill financing options;*

23                   (ii) *conduct training and educational*  
 24                   *activities;*

1                   (iii) offer confidential, free, one-on-one,  
2                   in-depth energy audits to the owners and  
3                   operators of small business concerns regard-  
4                   ing energy efficiency practices;

5                   (iv) give referrals to certified profes-  
6                   sionals and other providers of energy effi-  
7                   ciency assistance who meet such standards  
8                   for educational, technical, and professional  
9                   competency as the Administrator shall es-  
10                  tablish;

11                  (v) to the extent not inconsistent with  
12                  controlling State public utility regulations,  
13                  act as a facilitator between small business  
14                  concerns, electric utilities, lenders, and the  
15                  Administration to facilitate on-bill financ-  
16                  ing arrangements;

17                  (vi) provide necessary support to small  
18                  business concerns to—

19                       (I) evaluate energy efficiency op-  
20                       portunities and opportunities to design  
21                       or construct high performance green  
22                       buildings;

23                       (II) evaluate renewable energy  
24                       sources, such as the use of solar and



1            *small wind to supplement power con-*  
2            *sumption;*

3            *(III) secure financing to achieve*  
4            *energy efficiency or to design or con-*  
5            *struct high performance green build-*  
6            *ings; and*

7            *(IV) implement energy efficiency*  
8            *projects;*

9            *(vii) assist owners of small business*  
10          *concerns with the development and commer-*  
11          *cialization of clean technology products,*  
12          *goods, services, and processes that use re-*  
13          *newable energy sources, dramatically reduce*  
14          *the use of natural resources, and cut or*  
15          *eliminate greenhouse gas emissions*  
16          *through—*

17                  *(I) technology assessment;*

18                  *(II) intellectual property;*

19                  *(III) Small Business Innovation*  
20          *Research submissions under section 9*  
21          *of the Small Business Act (15 U.S.C.*  
22          *638);*

23                  *(IV) strategic alliances;*

24                  *(V) business model development;*

25                  *and*

1 (VI) preparation for investors;

2 and

3 (viii) help small business concerns im-  
4 prove environmental performance by shift-  
5 ing to less hazardous materials and reduc-  
6 ing waste and emissions, including by pro-  
7 viding assistance for small business con-  
8 cerns to adapt the materials they use, the  
9 processes they operate, and the products and  
10 services they produce.

11 (B) *REPORTS.*—Each small business devel-  
12 opment center participating in the Efficiency  
13 Program shall submit to the Administrator and  
14 the Administrator of the Environmental Protec-  
15 tion Agency an annual report that includes—

16 (i) a summary of the energy efficiency  
17 assistance provided by that center under the  
18 Efficiency Program;

19 (ii) the number of small business con-  
20 cerns assisted by that center under the Effi-  
21 ciency Program;

22 (iii) statistics on the total amount of  
23 energy saved as a result of assistance pro-  
24 vided by that center under the Efficiency  
25 Program; and

1                   (iv) any additional information deter-  
 2                   mined necessary by the Administrator, in  
 3                   consultation with the association.

4                   (C) *REPORTS TO CONGRESS.*—Not later  
 5                   than 60 days after the date on which all reports  
 6                   under subparagraph (B) relating to a year are  
 7                   submitted, the Administrator shall submit to the  
 8                   Committee on Small Business and Entrepreneur-  
 9                   ship of the Senate and the Committee on Small  
 10                  Business of the House of Representatives a report  
 11                  summarizing the information regarding the Effi-  
 12                  ciency Program submitted by small business de-  
 13                  velopment centers participating in that program.

14                  (3) *ELIGIBILITY.*—A small business development  
 15                  center shall be eligible to participate in the Efficiency  
 16                  Program only if that center is certified under section  
 17                  21(k)(2) of the Small Business Act (15 U.S.C.  
 18                  648(k)(2)).

19                  (4) *SELECTION OF PARTICIPATING STATE PRO-*  
 20                  *GRAMS.*—From among small business development  
 21                  centers submitting applications to participate in the  
 22                  Efficiency Program, the Administrator—

23                         (A) shall, to the maximum extent prac-  
 24                         ticable, select small business development centers  
 25                         in such a manner so as to promote a nationwide

1           *distribution of centers participating in the Effi-*  
 2           *ciency Program; and*

3                   *(B) may not select more than 1 small busi-*  
 4           *ness development center in a State to participate*  
 5           *in the Efficiency Program.*

6           (5) *MATCHING REQUIREMENT.*—*Subparagraphs*  
 7           *(A) and (B) of section 21(a)(4) of the Small Business*  
 8           *Act (15 U.S.C. 648(a)(4)) shall apply to assistance*  
 9           *made available under the Efficiency Program.*

10           (6) *GRANT AMOUNTS.*—*Each small business de-*  
 11           *velopment center selected to participate in the Effi-*  
 12           *ciency Program under paragraph (4) shall be eligible*  
 13           *to receive a grant in an amount equal to—*

14                   *(A) not less than \$100,000 in each fiscal*  
 15           *year; and*

16                   *(B) not more than \$300,000 in each fiscal*  
 17           *year.*

18           (7) *EVALUATION AND REPORT.*—*The Comptroller*  
 19           *General of the United States shall—*

20                   *(A) not later than 30 months after the date*  
 21           *of disbursement of the first grant under the Effi-*  
 22           *ciency Program, initiate an evaluation of that*  
 23           *program; and*

24                   *(B) not later than 6 months after the date*  
 25           *of the initiation of the evaluation under sub-*

1        *paragraph (A), submit to the Administrator, the*  
 2        *Committee on Small Business and Entrepreneur-*  
 3        *ship of the Senate, and the Committee on Small*  
 4        *Business of the House of Representatives, a re-*  
 5        *port containing—*

6                *(i) the results of the evaluation; and*

7                *(ii) any recommendations regarding*  
 8        *whether the Efficiency Program, with or*  
 9        *without modification, should be extended to*  
 10        *include the participation of all small busi-*  
 11        *ness development centers.*

12        *(8) GUARANTEE.—To the extent not inconsistent*  
 13        *with State law, the Administrator may guarantee the*  
 14        *timely payment of a loan made to a small business*  
 15        *concern through an on-bill financing agreement on*  
 16        *such terms and conditions as the Administrator shall*  
 17        *establish through a formal rule making, after pro-*  
 18        *viding notice and an opportunity for comment.*

19        *(9) IMPLEMENTATION.—Subject to amounts ap-*  
 20        *proved in advance in appropriations Acts and sepa-*  
 21        *rate from amounts approved to carry out section*  
 22        *21(a)(1) of the Small Business Act (15 U.S.C.*  
 23        *648(a)(1)), the Administrator may make grants or*  
 24        *enter into cooperative agreements to carry out this*  
 25        *subsection.*

1           (10) *AUTHORIZATION OF APPROPRIATIONS.—*

2           *There are authorized to be appropriated such sums as*  
 3           *are necessary to make grants and enter into coopera-*  
 4           *tive agreements to carry out this subsection.*

5           (11) *TERMINATION.—The authority under this*  
 6           *subsection shall terminate 4 years after the date of*  
 7           *disbursement of the first grant under the Efficiency*  
 8           *Program.*

9           (d) *SMALL BUSINESS TELECOMMUTING.—*

10           (1) *PILOT PROGRAM.—*

11           (A) *IN GENERAL.—The Administrator shall*  
 12           *conduct, in not more than 5 of the regions of the*  
 13           *Administration, a pilot program to provide in-*  
 14           *formation regarding telecommuting to employers*  
 15           *that are small business concerns and to encour-*  
 16           *age such employers to offer telecommuting op-*  
 17           *tions to employees.*

18           (B) *SPECIAL OUTREACH TO INDIVIDUALS*  
 19           *WITH DISABILITIES.—In carrying out the Tele-*  
 20           *commuting Pilot Program, the Administrator*  
 21           *shall make a concerted effort to provide informa-*  
 22           *tion to—*

23                   (i) *small business concerns owned by*  
 24                   *or employing individuals with disabilities,*

1 particularly veterans who are individuals  
2 with disabilities;

3 (ii) Federal, State, and local agencies  
4 having knowledge and expertise in assisting  
5 individuals with disabilities, including vet-  
6 erans who are individuals with disabilities;  
7 and

8 (iii) any group or organization, the  
9 primary purpose of which is to aid individ-  
10 uals with disabilities or veterans who are  
11 individuals with disabilities.

12 (C) *PERMISSIBLE ACTIVITIES*.—In carrying  
13 out the Telecommuting Pilot Program, the Ad-  
14 ministrator may—

15 (i) produce educational materials and  
16 conduct presentations designed to raise  
17 awareness in the small business community  
18 of the benefits and the ease of telecom-  
19 muting;

20 (ii) conduct outreach—

21 (I) to small business concerns that  
22 are considering offering telecommuting  
23 options; and

24 (II) as provided in subparagraph  
25 (B); and

1                   (iii) acquire telecommuting tech-  
2                   nologies and equipment to be used for dem-  
3                   onstration purposes.

4                   (D) *SELECTION OF REGIONS.*—In deter-  
5                   mining which regions will participate in the  
6                   Telecommuting Pilot Program, the Adminis-  
7                   trator shall give priority consideration to regions  
8                   in which Federal agencies and private-sector em-  
9                   ployers have demonstrated a strong regional  
10                  commitment to telecommuting.

11               (2) *REPORT TO CONGRESS.*—Not later than 2  
12               years after the date on which funds are first appro-  
13               priated to carry out this subsection, the Adminis-  
14               trator shall transmit to the Committee on Small  
15               Business and Entrepreneurship of the Senate and the  
16               Committee on Small Business of the House of Rep-  
17               resentatives a report containing the results of an eval-  
18               uation of the Telecommuting Pilot Program and any  
19               recommendations regarding whether the pilot pro-  
20               gram, with or without modification, should be ex-  
21               tended to include the participation of all regions of  
22               the Administration.

23               (3) *TERMINATION.*—The Telecommuting Pilot  
24               Program shall terminate 4 years after the date on



1       *which funds are first appropriated to carry out this*  
 2       *subsection.*

3               (4) *AUTHORIZATION OF APPROPRIATIONS.—*

4       *There is authorized to be appropriated to the Admin-*  
 5       *istration \$5,000,000 to carry out this subsection.*

6       (e) *ENCOURAGING INNOVATION IN ENERGY EFFI-*  
 7       *CIENCY.—Section 9 of the Small Business Act (15 U.S.C.*  
 8       *638) is amended by adding at the end the following:*

9               “(z) *ENCOURAGING INNOVATION IN ENERGY EFFI-*  
 10       *CIENCY.—*

11               “(1) *FEDERAL AGENCY ENERGY-RELATED PRI-*  
 12       *ORITY.—In carrying out its duties under this section*  
 13       *relating to SBIR and STTR solicitations by Federal*  
 14       *departments and agencies, the Administrator shall—*

15               “(A) *ensure that such departments and*  
 16       *agencies give high priority to small business con-*  
 17       *cerns that participate in or conduct energy effi-*  
 18       *ciency or renewable energy system research and*  
 19       *development projects; and*

20               “(B) *include in the annual report to Con-*  
 21       *gress under subsection (b)(7) a determination of*  
 22       *whether the priority described in subparagraph*  
 23       *(A) is being carried out.*

24               “(2) *CONSULTATION REQUIRED.—The Adminis-*  
 25       *trator shall consult with the heads of other Federal*

1        *departments and agencies in determining whether*  
 2        *priority has been given to small business concerns*  
 3        *that participate in or conduct energy efficiency or re-*  
 4        *newable energy system research and development*  
 5        *projects, as required by this subsection.*

6                “(3) *GUIDELINES.*—*The Administrator shall, as*  
 7        *soon as is practicable after the date of enactment of*  
 8        *this subsection, issue guidelines and directives to as-*  
 9        *sist Federal agencies in meeting the requirements of*  
 10       *this subsection.*

11               “(4) *DEFINITIONS.*—*In this subsection—*

12                        “(A) *the term ‘biomass’—*

13                                “(i) *means any organic material that*  
 14                                *is available on a renewable or recurring*  
 15                                *basis, including—*

16                                        “(I) *agricultural crops;*

17                                        “(II) *trees grown for energy pro-*  
 18                                        *duction;*

19                                        “(III) *wood waste and wood resi-*  
 20                                        *dues;*

21                                        “(IV) *plants (including aquatic*  
 22                                        *plants and grasses);*

23                                        “(V) *residues;*

24                                        “(VI) *fibers;*

1                   “(VII) animal wastes and other  
2                   waste materials; and

3                   “(VIII) fats, oils, and greases (in-  
4                   cluding recycled fats, oils, and greases);  
5                   and

6                   “(ii) does not include—

7                   “(I) paper that is commonly recy-  
8                   cled; or

9                   “(II) unsegregated solid waste;

10                  “(B) the term ‘energy efficiency project’  
11                  means the installation or upgrading of equip-  
12                  ment that results in a significant reduction in  
13                  energy usage; and

14                  “(C) the term ‘renewable energy system’  
15                  means a system of energy derived from—

16                  “(i) a wind, solar, biomass (including  
17                  biodiesel), or geothermal source; or

18                  “(ii) hydrogen derived from biomass or  
19                  water using an energy source described in  
20                  clause (i).”.

1 **SEC. 1204. LARGER 504 LOAN LIMITS TO HELP BUSINESS**  
 2 **DEVELOP ENERGY EFFICIENT TECH-**  
 3 **NOLOGIES AND PURCHASES.**

4 (a) *ELIGIBILITY FOR ENERGY EFFICIENCY*  
 5 *PROJECTS.*—Section 501(d)(3) of the Small Business In-  
 6 vestment Act of 1958 (15 U.S.C. 695(d)(3)) is amended—

7 (1) in subparagraph (G) by striking “or” at the  
 8 end;

9 (2) in subparagraph (H) by striking the period  
 10 at the end and inserting a comma;

11 (3) by inserting after subparagraph (H) the fol-  
 12 lowing:

13 “(I) reduction of energy consumption by at  
 14 least 10 percent,

15 “(J) increased use of sustainable design, in-  
 16 cluding designs that reduce the use of greenhouse  
 17 gas emitting fossil fuels, or low-impact design to  
 18 produce buildings that reduce the use of non-re-  
 19 newable resources and minimize environmental  
 20 impact, or

21 “(K) plant, equipment and process up-  
 22 grades of renewable energy sources such as the  
 23 small-scale production of energy for individual  
 24 buildings or communities consumption, com-  
 25 monly known as micropower, or renewable fuels

1           producers including biodiesel and ethanol pro-  
 2           ducers.”; and

3           (4) by adding at the end the following: “In sub-  
 4           paragraphs (J) and (K), terms have the meanings  
 5           given those terms under the Leadership in Energy  
 6           and Environmental Design (LEED) standard for  
 7           green building certification, as determined by the Ad-  
 8           ministrator.”.

9           (b) *LOANS FOR PLANT PROJECTS USED FOR ENERGY-*  
 10          *EFFICIENT PURPOSES.*—Section 502(2)(A) of the Small  
 11          Business Investment Act of 1958 (15 U.S.C. 696(2)(A)) is  
 12          amended—

13               (1) in clause (ii) by striking “and” at the end;

14               (2) in clause (iii) by striking the period at the  
 15          end and inserting a semicolon; and

16               (3) by adding at the end the following:

17                       “(iv) \$4,000,000 for each project that  
 18                       reduces the borrower’s energy consumption  
 19                       by at least 10 percent; and

20                       “(v) \$4,000,000 for each project that  
 21                       generates renewable energy or renewable  
 22                       fuels, such as biodiesel or ethanol produc-  
 23                       tion.”.

1 **SEC. 1205. ENERGY SAVING DEBENTURES.**

2       (a) *IN GENERAL.*—Section 303 of the Small Business  
3 *Investment Act of 1958 (15 U.S.C. 683) is amended by add-*  
4 *ing at the end the following:*

5       “(k) *ENERGY SAVING DEBENTURES.*—In addition to  
6 *any other authority under this Act, a small business invest-*  
7 *ment company licensed in the first fiscal year after the date*  
8 *of enactment of this subsection or any fiscal year thereafter*  
9 *may issue Energy Saving debentures.”.*

10       (b) *DEFINITIONS.*—Section 103 of the Small Business  
11 *Investment Act of 1958 (15 U.S.C. 662) is amended—*

12               (1) *in paragraph (16), by striking “and” at the*  
13 *end;*

14               (2) *in paragraph (17), by striking the period at*  
15 *the end and inserting a semicolon; and*

16               (3) *by adding at the end the following:*

17               “(18) *the term ‘Energy Saving debenture’ means*  
18 *a deferred interest debenture that—*

19                       “(A) *is issued at a discount;*

20                       “(B) *has a 5-year maturity or a 10-year*  
21 *maturity;*

22                       “(C) *requires no interest payment or an-*  
23 *nual charge for the first 5 years;*

24                       “(D) *is restricted to Energy Saving quali-*  
25 *fied investments; and*

1           “(E) is issued at no cost (as defined in sec-  
 2           tion 502 of the Credit Reform Act of 1990) with  
 3           respect to purchasing and guaranteeing the de-  
 4           benture; and

5           “(19) the term ‘Energy Saving qualified invest-  
 6           ment’ means investment in a small business concern  
 7           that is primarily engaged in researching, manufac-  
 8           turing, developing, or providing products, goods, or  
 9           services that reduce the use or consumption of non-re-  
 10          newable energy resources.”.

11 **SEC. 1206. INVESTMENTS IN ENERGY SAVING SMALL BUSI-**  
 12 **NESSES.**

13           (a) *MAXIMUM LEVERAGE*.—Section 303(b)(2) of the  
 14 *Small Business Investment Act of 1958* (15 U.S.C.  
 15 303(b)(2)) is amended by adding at the end the following:

16           “(D) *INVESTMENTS IN ENERGY SAVING*  
 17 *SMALL BUSINESSES*.—

18           “(i) *IN GENERAL*.—Subject to clause  
 19           (ii), in calculating the outstanding leverage  
 20           of a company for purposes of subparagraph  
 21           (A), the Administrator shall exclude the  
 22           amount of the cost basis of any *Energy Sav-*  
 23           *ing* qualified investment in a smaller enter-  
 24           prise made in the first fiscal year after the  
 25           date of enactment of this subparagraph or

any fiscal year thereafter by a company licensed in the applicable fiscal year.

“(ii) *LIMITATIONS.*—

“(I) *AMOUNT OF EXCLUSION.*—

The amount excluded under clause (i) for a company shall not exceed 33 percent of the private capital of that company.

“(II) *MAXIMUM INVESTMENT.*—A

company shall not make an Energy Saving qualified investment in any one entity in an amount equal to more than 20 percent of the private capital of that company.

“(III) *OTHER TERMS.*—The exclu-

sion of amounts under clause (i) shall be subject to such terms as the Administrator may impose to ensure that there is no cost (as that term is defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)) with respect to purchasing or guaranteeing any debenture involved.”.

(b) *MAXIMUM AGGREGATE AMOUNT OF LEVERAGE.*—

Section 303(b)(4) of the Small Business Investment Act of



1 1958 (15 U.S.C. 303(b)(4)) is amended by adding at the  
 2 end the following:

3 “(E) INVESTMENTS IN ENERGY SAVING  
 4 SMALL BUSINESSES.—

5 “(i) IN GENERAL.—Subject to clause  
 6 (ii), in calculating the aggregate out-  
 7 standing leverage of a company for pur-  
 8 poses of subparagraph (A), the Adminis-  
 9 trator shall exclude the amount of the cost  
 10 basis of any Energy Saving qualified in-  
 11 vestment in a smaller enterprise made in  
 12 the first fiscal year after the date of enact-  
 13 ment of this subparagraph or any fiscal  
 14 year thereafter by a company licensed in  
 15 the applicable fiscal year.

16 “(ii) LIMITATIONS.—

17 “(I) AMOUNT OF EXCLUSION.—  
 18 The amount excluded under clause (i)  
 19 for a company shall not exceed 33 per-  
 20 cent of the private capital of that com-  
 21 pany.

22 “(II) MAXIMUM INVESTMENT.—A  
 23 company shall not make an Energy  
 24 Saving qualified investment in any  
 25 one entity in an amount equal to more

1                    *than 20 percent of the private capital*  
 2                    *of that company.*

3                    *“(III) OTHER TERMS.—The exclu-*  
 4                    *sion of amounts under clause (i) shall*  
 5                    *be subject to such terms as the Admin-*  
 6                    *istrator may impose to ensure that*  
 7                    *there is no cost (as that term is defined*  
 8                    *in section 502 of the Federal Credit*  
 9                    *Reform Act of 1990 (2 U.S.C. 661a))*  
 10                    *with respect to purchasing or guaran-*  
 11                    *teeing any debenture involved.”.*

12    **SEC. 1207. RENEWABLE FUEL CAPITAL INVESTMENT COM-**  
 13                    **PANY.**

14                    *Title III of the Small Business Investment Act of 1958*  
 15                    *(15 U.S.C. 681 et seq.) is amended by adding at the end*  
 16                    *the following:*

17                    **“PART C—RENEWABLE FUEL CAPITAL**  
 18                    **INVESTMENT PILOT PROGRAM**

19    **“SEC. 381. DEFINITIONS.**

20                    *“In this part:*

21                    *“(1) OPERATIONAL ASSISTANCE.—The term*  
 22                    *‘operational assistance’ means management, mar-*  
 23                    *keting, and other technical assistance that assists a*  
 24                    *small business concern with business development.*

1           “(2) *PARTICIPATION AGREEMENT.*—*The term*  
 2           *‘participation agreement’ means an agreement, be-*  
 3           *tween the Administrator and a company granted*  
 4           *final approval under section 384(e), that—*

5                     “(A) *details the operating plan and invest-*  
 6                     *ment criteria of the company; and*

7                     “(B) *requires the company to make invest-*  
 8                     *ments in smaller enterprises primarily engaged*  
 9                     *in researching, manufacturing, developing, pro-*  
 10                    *ducing, or bringing to market goods, products, or*  
 11                    *services that generate or support the production*  
 12                    *of renewable energy.*

13           “(3) *RENEWABLE ENERGY.*—*The term ‘renewable*  
 14           *energy’ means energy derived from resources that are*  
 15           *regenerative or that cannot be depleted, including*  
 16           *solar, wind, ethanol, and biodiesel fuels.*

17           “(4) *RENEWABLE FUEL CAPITAL INVESTMENT*  
 18           *COMPANY.*—*The term ‘Renewable Fuel Capital Invest-*  
 19           *ment company’ means a company—*

20                     “(A) *that—*

21                             “(i) *has been granted final approval by*  
 22                             *the Administrator under section 384(e); and*

23                             “(ii) *has entered into a participation*  
 24                             *agreement with the Administrator; or*

1                   “(B) that has received conditional approval  
2                   under section 384(c).

3                   “(5) STATE.—The term ‘State’ means each of the  
4                   several States, the District of Columbia, the Common-  
5                   wealth of Puerto Rico, the Virgin Islands, Guam,  
6                   American Samoa, the Commonwealth of the Northern  
7                   Mariana Islands, and any other commonwealth, terri-  
8                   tory, or possession of the United States.

9                   “(6) VENTURE CAPITAL.—The term ‘venture cap-  
10                  ital’ means capital in the form of equity capital in-  
11                  vestments, as that term is defined in section  
12                  303(g)(4).

13   **“SEC. 382. PURPOSES.**

14                  “The purposes of the Renewable Fuel Capital Invest-  
15                  ment Program established under this part are—

16                  “(1) to promote the research, development, man-  
17                  ufacture, production, and bringing to market of goods,  
18                  products, or services that generate or support the pro-  
19                  duction of renewable energy by encouraging venture  
20                  capital investments in smaller enterprises primarily  
21                  engaged such activities; and

22                  “(2) to establish a venture capital program, with  
23                  the mission of addressing the unmet equity invest-  
24                  ment needs of smaller enterprises engaged in research-  
25                  ing, developing, manufacturing, producing, and

1       *bringing to market goods, products, or services that*  
 2       *generate or support the production of renewable en-*  
 3       *ergy, to be administered by the Administrator—*

4               “(A) *to enter into participation agreements*  
 5       *with Renewable Fuel Capital Investment compa-*  
 6       *nies;*

7               “(B) *to guarantee debentures of Renewable*  
 8       *Fuel Capital Investment companies to enable*  
 9       *each such company to make venture capital in-*  
 10       *vestments in smaller enterprises engaged in the*  
 11       *research, development, manufacture, production,*  
 12       *and bringing to market of goods, products, or*  
 13       *services that generate or support the production*  
 14       *of renewable energy; and*

15               “(C) *to make grants to Renewable Fuel In-*  
 16       *vestment Capital companies, and to other enti-*  
 17       *ties, for the purpose of providing operational as-*  
 18       *sistance to smaller enterprises financed, or ex-*  
 19       *pected to be financed, by such companies.*

20       **“SEC. 383. ESTABLISHMENT.**

21               *“The Administrator shall establish a Renewable Fuel*  
 22       *Capital Investment Program, under which the Adminis-*  
 23       *trator may—*

24               “(1) *enter into participation agreements for the*  
 25       *purposes described in section 382; and*

1           “(2) *guarantee the debentures issued by Renew-*  
 2           *able Fuel Capital Investment companies as provided*  
 3           *in section 385.*

4   **“SEC. 384. SELECTION OF RENEWABLE FUEL CAPITAL IN-**  
 5           **VESTMENT COMPANIES.**

6           “(a) *ELIGIBILITY.*—*A company is eligible to apply to*  
 7           *be designated as a Renewable Fuel Capital Investment com-*  
 8           *pany if the company—*

9                   “(1) *is a newly formed for-profit entity or a*  
 10           *newly formed for-profit subsidiary of an existing enti-*  
 11           *ty;*

12                   “(2) *has a management team with experience in*  
 13           *alternative energy financing or relevant venture cap-*  
 14           *ital financing; and*

15                   “(3) *has a primary objective of investment in*  
 16           *smaller enterprises that research, manufacture, de-*  
 17           *velop, produce, or bring to market goods, products, or*  
 18           *services that generate or support the production of re-*  
 19           *newable energy.*

20           “(b) *APPLICATION.*—*A company desiring to be des-*  
 21           *ignated as a Renewable Fuel Capital Investment company*  
 22           *shall submit an application to the Administrator that*  
 23           *includes—*

24                   “(1) *a business plan describing how the company*  
 25           *intends to make successful venture capital investments*

1        *in smaller enterprises primarily engaged in the re-*  
2        *search, manufacture, development, production, or*  
3        *bringing to market of goods, products, or services that*  
4        *generate or support the production of renewable en-*  
5        *ergy;*

6                *“(2) information regarding the relevant venture*  
7        *capital qualifications and general reputation of the*  
8        *management of the company;*

9                *“(3) a description of how the company intends*  
10       *to seek to address the unmet capital needs of the*  
11       *smaller enterprises served;*

12               *“(4) a proposal describing how the company in-*  
13       *tends to use the grant funds provided under this part*  
14       *to provide operational assistance to smaller enter-*  
15       *prises financed by the company, including informa-*  
16       *tion regarding whether the company has employees*  
17       *with appropriate professional licenses or will contract*  
18       *with another entity when the services of such an indi-*  
19       *vidual are necessary;*

20               *“(5) with respect to binding commitments to be*  
21       *made to the company under this part, an estimate of*  
22       *the ratio of cash to in-kind contributions;*

23               *“(6) a description of whether and to what extent*  
24       *the company meets the criteria under subsection*

1       (c)(2) and the objectives of the program established  
2       under this part;

3               “(7) information regarding the management and  
4       financial strength of any parent firm, affiliated firm,  
5       or any other firm essential to the success of the busi-  
6       ness plan of the company; and

7               “(8) such other information as the Administrator  
8       may require.

9       “(c) *CONDITIONAL APPROVAL.*—

10              “(1) *IN GENERAL.*—From among companies sub-  
11       mitting applications under subsection (b), the Admin-  
12       istrator shall conditionally approve companies to op-  
13       erate as Renewable Fuel Capital Investment compa-  
14       nies.

15              “(2) *SELECTION CRITERIA.*—In conditionally  
16       approving companies under paragraph (1), the Ad-  
17       ministrator shall consider—

18                      “(A) the likelihood that the company will  
19       meet the goal of its business plan;

20                      “(B) the experience and background of the  
21       management team of the company;

22                      “(C) the need for venture capital invest-  
23       ments in the geographic areas in which the com-  
24       pany intends to invest;



1           “(D) the extent to which the company will  
2           concentrate its activities on serving the geo-  
3           graphic areas in which it intends to invest;

4           “(E) the likelihood that the company will be  
5           able to satisfy the conditions under subsection  
6           (d);

7           “(F) the extent to which the activities pro-  
8           posed by the company will expand economic op-  
9           portunities in the geographic areas in which the  
10          company intends to invest;

11          “(G) the strength of the proposal by the  
12          company to provide operational assistance under  
13          this part as the proposal relates to the ability of  
14          the company to meet applicable cash require-  
15          ments and properly use in-kind contributions,  
16          including the use of resources for the services of  
17          licensed professionals, when necessary, whether  
18          provided by employees or contractors; and

19          “(H) any other factor determined appro-  
20          priate by the Administrator.

21          “(3) NATIONWIDE DISTRIBUTION.—From among  
22          companies submitting applications under subsection  
23          (b), the Administrator shall consider the selection cri-  
24          teria under paragraph (2) and shall, to the maximum

1       *extent practicable, approve at least one company from*  
 2       *each geographic region of the Administration.*

3       “(d) *REQUIREMENTS TO BE MET FOR FINAL AP-*  
 4       *PROVAL.*—

5               “(1) *IN GENERAL.*—*The Administrator shall*  
 6       *grant each conditionally approved company 2 years*  
 7       *to satisfy the requirements of this subsection.*

8               “(2) *CAPITAL REQUIREMENT.*—*Each condi-*  
 9       *tionally approved company shall raise not less than*  
 10       *\$3,000,000 of private capital or binding capital com-*  
 11       *mitments from 1 or more investors (which shall not*  
 12       *be departments or agencies of the Federal Govern-*  
 13       *ment) who meet criteria established by the Adminis-*  
 14       *trator.*

15               “(3) *NONADMINISTRATION RESOURCES FOR*  
 16       *OPERATIONAL ASSISTANCE.*—

17               “(A) *IN GENERAL.*—*In order to provide*  
 18       *operational assistance to smaller enterprises ex-*  
 19       *pected to be financed by the company, each con-*  
 20       *ditionally approved company shall have binding*  
 21       *commitments (for contribution in cash or in-*  
 22       *kind)—*

23               “(i) *from sources other than the Ad-*  
 24       *ministration that meet criteria established*  
 25       *by the Administrator; and*

1                   “(ii) payable or available over a  
2                   multiyear period determined appropriate by  
3                   the Administrator (not to exceed 10 years).

4                   “(B) *EXCEPTION.*—The Administrator may,  
5                   in the discretion of the Administrator and based  
6                   upon a showing of special circumstances and  
7                   good cause, consider an applicant to have satis-  
8                   fied the requirements of subparagraph (A) if the  
9                   applicant has—

10                   “(i) a viable plan that reasonably  
11                   projects the capacity of the applicant to  
12                   raise the amount (in cash or in-kind) re-  
13                   quired under subparagraph (A); and

14                   “(ii) binding commitments in an  
15                   amount equal to not less than 20 percent of  
16                   the total amount required under paragraph  
17                   (A).

18                   “(C) *LIMITATION.*—The total amount of a  
19                   in-kind contributions by a company shall be not  
20                   more than 50 percent of the total contributions  
21                   by a company.

22                   “(e) *FINAL APPROVAL; DESIGNATION.*—The Adminis-  
23                   trator shall, with respect to each applicant conditionally  
24                   approved under subsection (c)—

1           “(1) grant final approval to the applicant to op-  
 2           erate as a Renewable Fuel Capital Investment com-  
 3           pany under this part and designate the applicant as  
 4           such a company, if the applicant—

5                   “(A) satisfies the requirements of subsection  
 6                   (d) on or before the expiration of the time period  
 7                   described in that subsection; and

8                   “(B) enters into a participation agreement  
 9                   with the Administrator; or

10           “(2) if the applicant fails to satisfy the require-  
 11           ments of subsection (d) on or before the expiration of  
 12           the time period described in paragraph (1) of that  
 13           subsection, revoke the conditional approval granted  
 14           under that subsection.

15   **“SEC. 385. DEBENTURES.**

16           “(a) *IN GENERAL.*—The Administrator may guar-  
 17           antee the timely payment of principal and interest, as  
 18           scheduled, on debentures issued by any Renewable Fuel  
 19           Capital Investment company.

20           “(b) *TERMS AND CONDITIONS.*—The Administrator  
 21           may make guarantees under this section on such terms and  
 22           conditions as it determines appropriate, except that—

23                   “(1) the term of any debenture guaranteed under  
 24                   this section shall not exceed 15 years; and

25                   “(2) a debenture guaranteed under this section—

1           “(A) shall carry no front-end or annual  
2           fees;

3           “(B) shall be issued at a discount;

4           “(C) shall require no interest payments dur-  
5           ing the 5-year period beginning on the date the  
6           debenture is issued;

7           “(D) shall be prepayable without penalty  
8           after the end of the 1-year period beginning on  
9           the date the debenture is issued; and

10          “(E) shall require semiannual interest pay-  
11          ments after the period described in subparagraph  
12          (C).

13          “(c) *FULL FAITH AND CREDIT OF THE UNITED*  
14          *STATES.*—*The full faith and credit of the United States is*  
15          *pledged to pay all amounts that may be required to be paid*  
16          *under any guarantee under this part.*

17          “(d) *MAXIMUM GUARANTEE.*—

18          “(1) *IN GENERAL.*—*Under this section, the Ad-*  
19          *ministrator may guarantee the debentures issued by*  
20          *a Renewable Fuel Capital Investment company only*  
21          *to the extent that the total face amount of outstanding*  
22          *guaranteed debentures of such company does not ex-*  
23          *ceed 150 percent of the private capital of the com-*  
24          *pany, as determined by the Administrator.*

1           “(2) *TREATMENT OF CERTAIN FEDERAL*  
 2           *FUNDS.*—*For the purposes of paragraph (1), private*  
 3           *capital shall include capital that is considered to be*  
 4           *Federal funds, if such capital is contributed by an in-*  
 5           *vestor other than a department or agency of the Fed-*  
 6           *eral Government.*

7   **“SEC. 386. ISSUANCE AND GUARANTEE OF TRUST CERTIFI-**  
 8           **CATES.**

9           “(a) *ISSUANCE.*—*The Administrator may issue trust*  
 10          *certificates representing ownership of all or a fractional*  
 11          *part of debentures issued by a Renewable Fuel Capital In-*  
 12          *vestment company and guaranteed by the Administrator*  
 13          *under this part, if such certificates are based on and backed*  
 14          *by a trust or pool approved by the Administrator and com-*  
 15          *posed solely of guaranteed debentures.*

16          “(b) *GUARANTEE.*—

17               “(1) *IN GENERAL.*—*The Administrator may,*  
 18               *under such terms and conditions as it determines ap-*  
 19               *propriate, guarantee the timely payment of the prin-*  
 20               *cipal of and interest on trust certificates issued by the*  
 21               *Administrator or its agents for purposes of this sec-*  
 22               *tion.*

23               “(2) *LIMITATION.*—*Each guarantee under this*  
 24               *subsection shall be limited to the extent of principal*

1       *and interest on the guaranteed debentures that com-*  
 2       *pose the trust or pool.*

3               “(3) *PREPAYMENT OR DEFAULT.*—*If a debenture*  
 4       *in a trust or pool is prepaid, or in the event of de-*  
 5       *fault of such a debenture, the guarantee of timely*  
 6       *payment of principal and interest on the trust certifi-*  
 7       *cates shall be reduced in proportion to the amount of*  
 8       *principal and interest such prepaid debenture rep-*  
 9       *resents in the trust or pool. Interest on prepaid or de-*  
 10       *faulted debentures shall accrue and be guaranteed by*  
 11       *the Administrator only through the date of payment*  
 12       *of the guarantee. At any time during its term, a trust*  
 13       *certificate may be called for redemption due to pre-*  
 14       *payment or default of all debentures.*

15               “(c) *FULL FAITH AND CREDIT OF THE UNITED*  
 16       *STATES.*—*The full faith and credit of the United States is*  
 17       *pledged to pay all amounts that may be required to be paid*  
 18       *under any guarantee of a trust certificate issued by the Ad-*  
 19       *ministrator or its agents under this section.*

20               “(d) *FEES.*—*The Administrator shall not collect a fee*  
 21       *for any guarantee of a trust certificate under this section,*  
 22       *but any agent of the Administrator may collect a fee ap-*  
 23       *proved by the Administrator for the functions described in*  
 24       *subsection (f)(2).*

25               “(e) *SUBROGATION AND OWNERSHIP RIGHTS.*—

1           “(1) *SUBROGATION.*—*If the Administrator pays*  
 2           *a claim under a guarantee issued under this section,*  
 3           *it shall be subrogated fully to the rights satisfied by*  
 4           *such payment.*

5           “(2) *OWNERSHIP RIGHTS.*—*No Federal, State, or*  
 6           *local law shall preclude or limit the exercise by the*  
 7           *Administrator of its ownership rights in the deben-*  
 8           *tures residing in a trust or pool against which trust*  
 9           *certificates are issued under this section.*

10          “(f) *MANAGEMENT AND ADMINISTRATION.*—

11           “(1) *REGISTRATION.*—*The Administrator may*  
 12           *provide for a central registration of all trust certifi-*  
 13           *cates issued under this section.*

14           “(2) *CONTRACTING OF FUNCTIONS.*—

15           “(A) *IN GENERAL.*—*The Administrator*  
 16           *may contract with an agent or agents to carry*  
 17           *out on behalf of the Administrator the pooling*  
 18           *and the central registration functions provided*  
 19           *for in this section, including, notwithstanding*  
 20           *any other provision of law—*

21           “(i) *maintenance, on behalf of and*  
 22           *under the direction of the Administrator, of*  
 23           *such commercial bank accounts or invest-*  
 24           *ments in obligations of the United States as*  
 25           *may be necessary to facilitate the creation*



1                   *of trusts or pools backed by debentures guar-*  
 2                   *anteed under this part; and*

3                   “(ii) *the issuance of trust certificates to*  
 4                   *facilitate the creation of such trusts or*  
 5                   *pools.*

6                   “(B) *FIDELITY BOND OR INSURANCE RE-*  
 7                   *QUIREMENT.—Any agent performing functions*  
 8                   *on behalf of the Administrator under this para-*  
 9                   *graph shall provide a fidelity bond or insurance*  
 10                  *in such amounts as the Administrator deter-*  
 11                  *mines to be necessary to fully protect the inter-*  
 12                  *ests of the United States.*

13                  “(3) *REGULATION OF BROKERS AND DEALERS.—*  
 14                  *The Administrator may regulate brokers and dealers*  
 15                  *in trust certificates issued under this section.*

16                  “(4) *ELECTRONIC REGISTRATION.—Nothing in*  
 17                  *this subsection may be construed to prohibit the use*  
 18                  *of a book-entry or other electronic form of registration*  
 19                  *for trust certificates issued under this section.*

20       **“SEC. 387. FEES.**

21                  “(a) *IN GENERAL.—Except as provided in section*  
 22                  *386(d), the Administrator may charge such fees as it deter-*  
 23                  *mines appropriate with respect to any guarantee or grant*  
 24                  *issued under this part, in an amount established annually*  
 25                  *by the Administrator, as necessary to reduce to zero the cost*

1 *(as defined in section 502 of the Federal Credit Reform Act*  
 2 *of 1990) to the Administration of purchasing and guaran-*  
 3 *teeing debentures under this part, which amounts shall be*  
 4 *paid to and retained by the Administration.*

5       “(b) *OFFSET.*—*The Administrator may, as provided*  
 6 *by section 388, offset fees charged and collected under sub-*  
 7 *section (a).*

8 **“SEC. 388. FEE CONTRIBUTION.**

9       “(a) *IN GENERAL.*—*To the extent that amounts are*  
 10 *made available to the Administrator for the purpose of fee*  
 11 *contributions, the Administrator shall contribute to fees*  
 12 *paid by the Renewable Fuel Capital Investment companies*  
 13 *under section 387.*

14       “(b) *ANNUAL ADJUSTMENT.*—*Each fee contribution*  
 15 *under subsection (a) shall be effective for 1 fiscal year and*  
 16 *shall be adjusted as necessary for each fiscal year thereafter*  
 17 *to ensure that amounts under subsection (a) are fully used.*  
 18 *The fee contribution for a fiscal year shall be based on the*  
 19 *outstanding commitments made and the guarantees and*  
 20 *grants that the Administrator projects will be made during*  
 21 *that fiscal year, given the program level authorized by law*  
 22 *for that fiscal year and any other factors that the Adminis-*  
 23 *trator determines appropriate.*

24 **“SEC. 389. OPERATIONAL ASSISTANCE GRANTS.**

25       “(a) *IN GENERAL.*—

1           “(1) *AUTHORITY.*—*The Administrator may*  
2           *make grants to Renewable Fuel Capital Investment*  
3           *companies to provide operational assistance to small-*  
4           *er enterprises financed, or expected to be financed, by*  
5           *such companies or other entities.*

6           “(2) *TERMS.*—*A grant under this subsection*  
7           *shall be made over a multiyear period not to exceed*  
8           *10 years, under such other terms as the Administrator*  
9           *may require.*

10          “(3) *GRANT AMOUNT.*—*The amount of a grant*  
11          *made under this subsection to a Renewable Fuel Cap-*  
12          *ital Investment company shall be equal to the lesser*  
13          *of—*

14               “(A) *10 percent of the resources (in cash or*  
15               *in kind) raised by the company under section*  
16               *384(d)(2); or*

17               “(B) *\$1,000,000.*

18          “(4) *PRO RATA REDUCTIONS.*—*If the amount*  
19          *made available to carry out this section is insufficient*  
20          *for the Administrator to provide grants in the*  
21          *amounts provided for in paragraph (3), the Adminis-*  
22          *trator shall make pro rata reductions in the amounts*  
23          *otherwise payable to each company and entity under*  
24          *such paragraph.*

1           “(5) *GRANTS TO CONDITIONALLY APPROVED COM-*  
2           *PANIES.—*

3                   “(A) *IN GENERAL.—Subject to subpara-*  
4                   *graphs (B) and (C), upon the request of a com-*  
5                   *pany conditionally approved under section*  
6                   *384(c), the Administrator shall make a grant to*  
7                   *the company under this subsection.*

8                   “(B) *REPAYMENT BY COMPANIES NOT AP-*  
9                   *PROVED.—If a company receives a grant under*  
10                  *this paragraph and does not enter into a partici-*  
11                  *pation agreement for final approval, the com-*  
12                  *pany shall, subject to controlling Federal law,*  
13                  *repay the amount of the grant to the Adminis-*  
14                  *trator.*

15                  “(C) *DEDUCTION OF GRANT TO APPROVED*  
16                  *COMPANY.—If a company receives a grant under*  
17                  *this paragraph and receives final approval*  
18                  *under section 384(e), the Administrator shall de-*  
19                  *duct the amount of the grant from the total*  
20                  *grant amount the company receives for oper-*  
21                  *ational assistance.*

22                  “(D) *AMOUNT OF GRANT.—No company*  
23                  *may receive a grant of more than \$100,000*  
24                  *under this paragraph.*

25           “(b) *SUPPLEMENTAL GRANTS.—*

1           “(1) *IN GENERAL.*—*The Administrator may*  
 2           *make supplemental grants to Renewable Fuel Capital*  
 3           *Investment companies and to other entities, as au-*  
 4           *thorized by this part, under such terms as the Admin-*  
 5           *istrator may require, to provide additional oper-*  
 6           *ational assistance to smaller enterprises financed, or*  
 7           *expected to be financed, by the companies.*

8           “(2) *MATCHING REQUIREMENT.*—*The Adminis-*  
 9           *trator may require, as a condition of any supple-*  
 10          *mental grant made under this subsection, that the*  
 11          *company or entity receiving the grant provide from*  
 12          *resources (in a cash or in kind), other than those pro-*  
 13          *vided by the Administrator, a matching contribution*  
 14          *equal to the amount of the supplemental grant.*

15          “(c) *LIMITATION.*—*None of the assistance made avail-*  
 16          *able under this section may be used for any overhead or*  
 17          *general and administrative expense of a Renewable Fuel*  
 18          *Capital Investment company.*

19   **“SEC. 390. BANK PARTICIPATION.**

20          “(a) *IN GENERAL.*—*Except as provided in subsection*  
 21          *(b), any national bank, any member bank of the Federal*  
 22          *Reserve System, and (to the extent permitted under applica-*  
 23          *ble State law) any insured bank that is not a member of*  
 24          *such system, may invest in any Renewable Fuel Capital*

1 *Investment company, or in any entity established to invest*  
 2 *solely in Renewable Fuel Capital Investment companies.*

3 “(b) *LIMITATION.*—No bank described in subsection (a)  
 4 *may make investments described in such subsection that are*  
 5 *greater than 5 percent of the capital and surplus of the*  
 6 *bank.*

7 **“SEC. 391. FEDERAL FINANCING BANK.**

8 “Notwithstanding section 318, the Federal Financing  
 9 Bank may acquire a debenture issued by a Renewable Fuel  
 10 Capital Investment company under this part.

11 **“SEC. 392. REPORTING REQUIREMENT.**

12 “Each Renewable Fuel Capital Investment company  
 13 that participates in the program established under this part  
 14 shall provide to the Administrator such information as the  
 15 Administrator may require, including—

16 “(1) *information related to the measurement cri-*  
 17 *teria that the company proposed in its program ap-*  
 18 *plication; and*

19 “(2) *in each case in which the company makes,*  
 20 *under this part, an investment in, or a loan or a*  
 21 *grant to, a business that is not primarily engaged in*  
 22 *the research, development, manufacture, or bringing*  
 23 *to market or renewable energy sources, a report on the*  
 24 *nature, origin, and revenues of the business in which*  
 25 *investments are made.*

1 **“SEC. 393. EXAMINATIONS.**

2       “(a) *IN GENERAL.*—*Each Renewable Fuel Capital In-*  
 3 *vestment company that participates in the program estab-*  
 4 *lished under this part shall be subject to examinations made*  
 5 *at the direction of the Investment Division of the Adminis-*  
 6 *tration in accordance with this section.*

7       “(b) *ASSISTANCE OF PRIVATE SECTOR ENTITIES.*—  
 8 *Examinations under this section may be conducted with the*  
 9 *assistance of a private sector entity that has both the quali-*  
 10 *fications and the expertise necessary to conduct such exami-*  
 11 *nations.*

12       “(c) *COSTS.*—

13               “(1) *ASSESSMENT.*—

14                       “(A) *IN GENERAL.*—*The Administrator*  
 15 *may assess the cost of examinations under this*  
 16 *section, including compensation of the exam-*  
 17 *iners, against the company examined.*

18                       “(B) *PAYMENT.*—*Any company against*  
 19 *which the Administrator assesses costs under this*  
 20 *paragraph shall pay such costs.*

21               “(2) *DEPOSIT OF FUNDS.*—*Funds collected under*  
 22 *this section shall be deposited in the account for sala-*  
 23 *ries and expenses of the Administration.*

24 **“SEC. 394. MISCELLANEOUS.**

25       “To the extent such procedures are not inconsistent  
 26 with the requirements of this part, the Administrator may

1 *take such action as set forth in sections 309, 311, 312, and*  
 2 *314 and an officer, director, employee, agent, or other par-*  
 3 *ticipant in the management or conduct of the affairs of a*  
 4 *Renewable Fuel Capital Investment company shall be sub-*  
 5 *ject to the requirements of such sections.*

6 **“SEC. 395. REMOVAL OR SUSPENSION OF DIRECTORS OR**  
 7 **OFFICERS.**

8 *“Using the procedures for removing or suspending a*  
 9 *director or an officer of a licensee set forth in section 313*  
 10 *(to the extent such procedures are not inconsistent with the*  
 11 *requirements of this part), the Administrator may remove*  
 12 *or suspend any director or officer of any Renewable Fuel*  
 13 *Capital Investment company.*

14 **“SEC. 396. REGULATIONS.**

15 *“The Administrator may issue such regulations as the*  
 16 *Administrator determines necessary to carry out the provi-*  
 17 *sions of this part in accordance with its purposes.*

18 **“SEC. 397. AUTHORIZATIONS OF APPROPRIATIONS.**

19 *“(a) IN GENERAL.—Subject to the availability of ap-*  
 20 *propriations, the Administrator is authorized to make*  
 21 *\$15,000,000 in operational assistance grants under section*  
 22 *389 for each of fiscal years 2008 and 2009.*

23 *“(b) FUNDS COLLECTED FOR EXAMINATIONS.—Funds*  
 24 *deposited under section 393(c)(2) are authorized to be ap-*  
 25 *propriated only for the costs of examinations under section*



1 393 and for the costs of other oversight activities with re-  
 2 spect to the program established under this part.

3 **“SEC. 398. TERMINATION.**

4       *“The program under this part shall terminate at the*  
 5 *end of the second full fiscal year after the date that the Ad-*  
 6 *ministrator establishes the program under this part.”.*

7 **SEC. 1208. STUDY AND REPORT.**

8       *The Administrator of the Small Business Administra-*  
 9 *tion shall conduct a study of the Renewable Fuel Capital*  
 10 *Investment Program under part C of title III of the Small*  
 11 *Business Investment Act of 1958, as added by this Act. Not*  
 12 *later than 3 years after the date of enactment of this Act,*  
 13 *the Administrator shall complete the study under this sec-*  
 14 *tion and submit to Congress a report regarding the results*  
 15 *of the study.*

16 **TITLE XIII—SMART GRID**

17 **SEC. 1301. STATEMENT OF POLICY ON MODERNIZATION OF**  
 18 **ELECTRICITY GRID.**

19       *It is the policy of the United States to support the*  
 20 *modernization of the Nation’s electricity transmission and*  
 21 *distribution system to maintain a reliable and secure elec-*  
 22 *tricity infrastructure that can meet future demand growth*  
 23 *and to achieve each of the following, which together charac-*  
 24 *terize a Smart Grid:*

1           (1) *Increased use of digital information and con-*  
2           *trols technology to improve reliability, security, and*  
3           *efficiency of the electric grid.*

4           (2) *Dynamic optimization of grid operations*  
5           *and resources, with full cyber-security.*

6           (3) *Deployment and integration of distributed*  
7           *resources and generation, including renewable re-*  
8           *sources.*

9           (4) *Development and incorporation of demand*  
10          *response, demand-side resources, and energy-efficiency*  
11          *resources.*

12          (5) *Deployment of “smart” technologies (real-*  
13          *time, automated, interactive technologies that opti-*  
14          *mize the physical operation of appliances and con-*  
15          *sumer devices) for metering, communications con-*  
16          *cerning grid operations and status, and distribution*  
17          *automation.*

18          (6) *Integration of “smart” appliances and con-*  
19          *sumer devices.*

20          (7) *Deployment and integration of advanced*  
21          *electricity storage and peak-shaving technologies, in-*  
22          *cluding plug-in electric and hybrid electric vehicles,*  
23          *and thermal-storage air conditioning.*

24          (8) *Provision to consumers of timely information*  
25          *and control options.*

1           (9) *Development of standards for communication*  
 2           *and interoperability of appliances and equipment*  
 3           *connected to the electric grid, including the infra-*  
 4           *structure serving the grid.*

5           (10) *Identification and lowering of unreasonable*  
 6           *or unnecessary barriers to adoption of smart grid*  
 7           *technologies, practices, and services.*

8   **SEC. 1302. SMART GRID SYSTEM REPORT.**

9           *The Secretary, acting through the Assistant Secretary*  
 10          *of the Office of Electricity Delivery and Energy Reliability*  
 11          *(referred to in this section as the “OEDER”) and through*  
 12          *the Smart Grid Task Force established in section 1303,*  
 13          *shall, after consulting with any interested individual or en-*  
 14          *tity as appropriate, no later than one year after enactment,*  
 15          *and every two years thereafter, report to Congress con-*  
 16          *cerning the status of smart grid deployments nationwide*  
 17          *and any regulatory or government barriers to continued de-*  
 18          *ployment. The report shall provide the current status and*  
 19          *prospects of smart grid development, including information*  
 20          *on technology penetration, communications network capa-*  
 21          *bilities, costs, and obstacles. It may include recommenda-*  
 22          *tions for State and Federal policies or actions helpful to*  
 23          *facilitate the transition to a smart grid. To the extent ap-*  
 24          *propriate, it should take a regional perspective. In pre-*  
 25          *paring this report, the Secretary shall solicit advice and*

1 *contributions from the Smart Grid Advisory Committee cre-*  
 2 *ated in section 1303; from other involved Federal agencies*  
 3 *including but not limited to the Federal Energy Regulatory*  
 4 *Commission (“Commission”), the National Institute of*  
 5 *Standards and Technology (“Institute”), and the Depart-*  
 6 *ment of Homeland Security; and from other stakeholder*  
 7 *groups not already represented on the Smart Grid Advisory*  
 8 *Committee.*

9 **SEC. 1303. SMART GRID ADVISORY COMMITTEE AND SMART**  
 10 **GRID TASK FORCE.**

11 *(a) SMART GRID ADVISORY COMMITTEE.—*

12 *(1) ESTABLISHMENT.—The Secretary shall estab-*  
 13 *lish, within 90 days of enactment of this Part, a*  
 14 *Smart Grid Advisory Committee (either as an inde-*  
 15 *pendent entity or as a designated sub-part of a larger*  
 16 *advisory committee on electricity matters). The Smart*  
 17 *Grid Advisory Committee shall include eight or more*  
 18 *members appointed by the Secretary who have suffi-*  
 19 *cient experience and expertise to represent the full*  
 20 *range of smart grid technologies and services, to rep-*  
 21 *resent both private and non-Federal public sector*  
 22 *stakeholders. One member shall be appointed by the*  
 23 *Secretary to Chair the Smart Grid Advisory Com-*  
 24 *mittee.*

1           (2) *MISSION.*—*The mission of the Smart Grid*  
 2           *Advisory Committee shall be to advise the Secretary,*  
 3           *the Assistant Secretary, and other relevant Federal of-*  
 4           *ficials concerning the development of smart grid tech-*  
 5           *nologies, the progress of a national transition to the*  
 6           *use of smart-grid technologies and services, the evo-*  
 7           *lution of widely-accepted technical and practical*  
 8           *standards and protocols to allow interoperability and*  
 9           *inter-communication among smart-grid capable de-*  
 10          *vices, and the optimum means of using Federal incen-*  
 11          *tive authority to encourage such progress.*

12          (3) *APPLICABILITY OF FEDERAL ADVISORY COM-*  
 13          *MITTEE ACT.*—*The Federal Advisory Committee Act*  
 14          *(5 U.S.C. App.) shall apply to the Smart Grid Advi-*  
 15          *sory Committee.*

16          (b) *SMART GRID TASK FORCE.*—

17          (1) *ESTABLISHMENT.*—*The Assistant Secretary*  
 18          *of the Office of Electricity Delivery and Energy Reli-*  
 19          *ability shall establish, within 90 days of enactment of*  
 20          *this Part, a Smart Grid Task Force composed of des-*  
 21          *ignated employees from the various divisions of that*  
 22          *office who have responsibilities related to the transi-*  
 23          *tion to smart-grid technologies and practices. The As-*  
 24          *stant Secretary or his designee shall be identified as*  
 25          *the Director of the Smart Grid Task Force. The*

1     *Chairman of the Federal Energy Regulatory Commis-*  
2     *sion and the Director of the National Institute of*  
3     *Standards and Technology shall each designate at*  
4     *least one employee to participate on the Smart Grid*  
5     *Task Force. Other members may come from other*  
6     *agencies at the invitation of the Assistant Secretary*  
7     *or the nomination of the head of such other agency.*  
8     *The Smart Grid Task Force shall, without disrupting*  
9     *the work of the Divisions or Offices from which its*  
10    *members are drawn, provide an identifiable Federal*  
11    *entity to embody the Federal role in the national*  
12    *transition toward development and use of smart grid*  
13    *technologies.*

14           (2) *MISSION.—The mission of the Smart Grid*  
15    *Task Force shall be to insure awareness, coordination*  
16    *and integration of the diverse activities of the Office*  
17    *and elsewhere in the Federal government related to*  
18    *smart-grid technologies and practices, including but*  
19    *not limited to: smart grid research and development;*  
20    *development of widely accepted smart-grid standards*  
21    *and protocols; the relationship of smart-grid tech-*  
22    *nologies and practices to electric utility regulation;*  
23    *the relationship of smart-grid technologies and prac-*  
24    *tices to infrastructure development, system reliability*  
25    *and security; and the relationship of smart-grid tech-*

1        *nologies and practices to other facets of electricity*  
 2        *supply, demand, transmission, distribution, and pol-*  
 3        *icy. The Smart Grid Task Force shall collaborate*  
 4        *with the Smart Grid Advisory Committee and other*  
 5        *Federal agencies and offices. The Smart Grid Task*  
 6        *Force shall meet at the call of its Director as nec-*  
 7        *essary to accomplish its mission.*

8        *(c) AUTHORIZATION.—There are authorized to be ap-*  
 9        *propriated for the purposes of this section such sums as are*  
 10       *necessary to the Secretary to support the operations of the*  
 11       *Smart Grid Advisory Committee and Smart Grid Task*  
 12       *Force for each of fiscal years 2008 through 2020.*

13       **SEC. 1304. SMART GRID TECHNOLOGY RESEARCH, DEVEL-**  
 14       **OPMENT, AND DEMONSTRATION.**

15       *(a) POWER GRID DIGITAL INFORMATION TECH-*  
 16       *NOLOGY.—The Secretary, in consultation with the Federal*  
 17       *Energy Regulatory Commission and other appropriate*  
 18       *agencies, electric utilities, the States, and other stakeholders,*  
 19       *shall carry out a program—*

20                *(1) to develop advanced techniques for measuring*  
 21        *peak load reductions and energy-efficiency savings*  
 22        *from smart metering, demand response, distributed*  
 23        *generation, and electricity storage systems;*

1           (2) *to investigate means for demand response,*  
2           *distributed generation, and storage to provide ancil-*  
3           *lary services;*

4           (3) *to conduct research to advance the use of*  
5           *wide-area measurement and control networks, includ-*  
6           *ing data mining, visualization, advanced computing,*  
7           *and secure and dependable communications in a*  
8           *highly-distributed environment;*

9           (4) *to test new reliability technologies, including*  
10          *those concerning communications network capabili-*  
11          *ties, in a grid control room environment against a*  
12          *representative set of local outage and wide area black-*  
13          *out scenarios;*

14          (5) *to identify communications network capacity*  
15          *needed to implement advanced technologies.*

16          (6) *to investigate the feasibility of a transition*  
17          *to time-of-use and real-time electricity pricing;*

18          (7) *to develop algorithms for use in electric*  
19          *transmission system software applications;*

20          (8) *to promote the use of underutilized electricity*  
21          *generation capacity in any substitution of electricity*  
22          *for liquid fuels in the transportation system of the*  
23          *United States; and*

24          (9) *in consultation with the Federal Energy Reg-*  
25          *ulatory Commission, to propose interconnection pro-*



1        *tools to enable electric utilities to access electricity*  
2        *stored in vehicles to help meet peak demand loads.*

3        *(b) SMART GRID REGIONAL DEMONSTRATION INITIA-*  
4        *TIVE.—*

5                *(1) IN GENERAL.—The Secretary shall establish*  
6        *a smart grid regional demonstration initiative (re-*  
7        *ferred to in this subsection as the “Initiative”) com-*  
8        *posed of demonstration projects specifically focused on*  
9        *advanced technologies for use in power grid sensing,*  
10       *communications, analysis, and power flow control.*  
11       *The Secretary shall seek to leverage existing smart*  
12       *grid deployments.*

13               *(2) GOALS.—The goals of the Initiative shall*  
14       *be—*

15                *(A) to demonstrate the potential benefits of*  
16        *concentrated investments in advanced grid tech-*  
17        *nologies on a regional grid;*

18                *(B) to facilitate the commercial transition*  
19        *from the current power transmission and dis-*  
20        *tribution system technologies to advanced tech-*  
21        *nologies;*

22                *(C) to facilitate the integration of advanced*  
23        *technologies in existing electric networks to im-*  
24        *prove system performance, power flow control,*  
25        *and reliability;*

1           (D) to demonstrate protocols and standards  
 2           that allow for the measurement and validation of  
 3           the energy savings and fossil fuel emission reduc-  
 4           tions associated with the installation and use of  
 5           energy efficiency and demand response tech-  
 6           nologies and practices; and

7           (E) to investigate differences in each region  
 8           and regulatory environment regarding best prac-  
 9           tices in implementing smart grid technologies.

10       (3) *DEMONSTRATION PROJECTS.*—

11           (A) *IN GENERAL.*—In carrying out the ini-  
 12           tiative, the Secretary shall carry out smart grid  
 13           demonstration projects in up to 5 electricity con-  
 14           trol areas, including rural areas and at least 1  
 15           area in which the majority of generation and  
 16           transmission assets are controlled by a tax-ex-  
 17           empt entity.

18           (B) *COOPERATION.*—A demonstration  
 19           project under subparagraph (A) shall be carried  
 20           out in cooperation with the electric utility that  
 21           owns the grid facilities in the electricity control  
 22           area in which the demonstration project is car-  
 23           ried out.

24           (C) *FEDERAL SHARE OF COST OF TECH-*  
 25           *NOLOGY INVESTMENTS.*—The Secretary shall pro-

vide to an electric utility described in subparagraph (B) financial assistance for use in paying an amount equal to not more than 50 percent of the cost of qualifying advanced grid technology investments made by the electric utility to carry out a demonstration project.

(D) *INELIGIBILITY FOR GRANTS.*—No person or entity participating in any demonstration project conducted under this subsection shall be eligible for grants under section 1306 for otherwise qualifying investments made as part of that demonstration project.

(c) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated—

(1) to carry out subsection (a), such sums as are necessary for each of fiscal years 2008 through 2012; and

(2) to carry out subsection (b), \$100,000,000 for each of fiscal years 2008 through 2012.

**SEC. 1305. SMART GRID INTEROPERABILITY FRAMEWORK.**

(a) *INTEROPERABILITY FRAMEWORK.*—The Director of the National Institute of Standards and Technology shall have primary responsibility to coordinate the development of a framework that includes protocols and model standards for information management to achieve interoperability of

1 *smart grid devices and systems. Such protocols and stand-*  
 2 *ards shall further align policy, business, and technology ap-*  
 3 *proaches in a manner that would enable all electric re-*  
 4 *sources, including demand-side resources, to contribute to*  
 5 *an efficient, reliable electricity network. In developing such*  
 6 *protocols and standards—*

7           (1) *the Director shall seek input and cooperation*  
 8 *from the Commission, OEDER and its Smart Grid*  
 9 *Task Force, the Smart Grid Advisory Committee,*  
 10 *other relevant Federal and State agencies; and*

11           (2) *the Director shall also solicit input and co-*  
 12 *operation from private entities interested in such pro-*  
 13 *ocols and standards, including but not limited to the*  
 14 *Gridwise Architecture Council, the International*  
 15 *Electrical and Electronics Engineers, the National*  
 16 *Electric Reliability Organization recognized by the*  
 17 *Federal Energy Regulatory Commission, and Na-*  
 18 *tional Electrical Manufacturer's Association.*

19       (b) *SCOPE OF FRAMEWORK.—The framework devel-*  
 20 *oped under subsection (a) shall be flexible, uniform and*  
 21 *technology neutral, including but not limited to technologies*  
 22 *for managing smart grid information, and designed—*

23           (1) *to accommodate traditional, centralized gen-*  
 24 *eration and transmission resources and consumer dis-*  
 25 *tributed resources, including distributed generation,*

1        *renewable generation, energy storage, energy effi-*  
2        *ciency, and demand response and enabling devices*  
3        *and systems;*

4            *(2) to be flexible to incorporate—*

5                    *(A) regional and organizational differences;*

6            *and*

7                    *(B) technological innovations;*

8            *(3) to consider the use of voluntary uniform*  
9        *standards for certain classes of mass-produced electric*  
10       *appliances and equipment for homes and businesses*  
11       *that enable customers, at their election and consistent*  
12       *with applicable State and Federal laws, and are*  
13       *manufactured with the ability to respond to electric*  
14       *grid emergencies and demand response signals by cur-*  
15       *tailing all, or a portion of, the electrical power con-*  
16       *sumed by the appliances or equipment in response to*  
17       *an emergency or demand response signal, including*  
18       *through—*

19                    *(A) load reduction to reduce total electrical*  
20       *demand;*

21                    *(B) adjustment of load to provide grid an-*  
22       *cillary services; and*

23                    *(C) in the event of a reliability crisis that*  
24       *threatens an outage, short-term load shedding to*  
25       *help preserve the stability of the grid; and*

1           (4) *such voluntary standards should incorporate*  
 2           *appropriate manufacturer lead time.*

3           (c) *TIMING OF FRAMEWORK DEVELOPMENT.*—*The In-*  
 4           *stitute shall begin work pursuant to this section within 60*  
 5           *days of enactment. The Institute shall provide and publish*  
 6           *an initial report on progress toward recommended or con-*  
 7           *sensus standards and protocols within one year after enact-*  
 8           *ment, further reports at such times as developments war-*  
 9           *rant in the judgment of the Institute, and a final report*  
 10          *when the Institute determines that the work is completed*  
 11          *or that a Federal role is no longer necessary.*

12          (d) *STANDARDS FOR INTEROPERABILITY IN FEDERAL*  
 13          *JURISDICTION.*—*At any time after the Institute's work has*  
 14          *led to sufficient consensus in the Commission's judgment,*  
 15          *the Commission shall institute a rulemaking proceeding to*  
 16          *adopt such standards and protocols as may be necessary*  
 17          *to insure smart-grid functionality and interoperability in*  
 18          *interstate transmission of electric power, and regional and*  
 19          *wholesale electricity markets.*

20          (e) *AUTHORIZATION.*—*There are authorized to be ap-*  
 21          *propriated for the purposes of this section \$5,000,000 to the*  
 22          *Institute to support the activities required by this sub-*  
 23          *section for each of fiscal years 2008 through 2012.*

1 **SEC. 1306. FEDERAL MATCHING FUND FOR SMART GRID IN-**  
2 **VESTMENT COSTS.**

3 (a) *MATCHING FUND.*—*The Secretary shall establish*  
4 *a Smart Grid Investment Matching Grant Program to pro-*  
5 *vide reimbursement of one-fifth (20 percent) of qualifying*  
6 *Smart Grid investments.*

7 (b) *QUALIFYING INVESTMENTS.*—*Qualifying Smart*  
8 *Grid investments may include any of the following made*  
9 *on or after the date of enactment of this Act:*

10 (1) *In the case of appliances covered for purposes*  
11 *of establishing energy conservation standards under*  
12 *part B of title III of the Energy Policy and Conserva-*  
13 *tion Act of 1975 (42 U.S.C. 6291 et seq.), the docu-*  
14 *mented expenditures incurred by a manufacturer of*  
15 *such appliances associated with purchasing or design-*  
16 *ing, creating the ability to manufacture, and manu-*  
17 *facturing and installing for one calendar year, inter-*  
18 *nal devices that allow the appliance to engage in*  
19 *Smart Grid functions.*

20 (2) *In the case of specialized electricity-using*  
21 *equipment, including motors and drivers, installed in*  
22 *industrial or commercial applications, the docu-*  
23 *mented expenditures incurred by its owner or its*  
24 *manufacturer of installing devices or modifying that*  
25 *equipment to engage in Smart Grid functions.*

1           (3) *In the case of transmission and distribution*  
2           *equipment fitted with monitoring and communica-*  
3           *tions devices to enable smart grid functions, the docu-*  
4           *mented expenditures incurred by the electric utility to*  
5           *purchase and install such monitoring and commu-*  
6           *nications devices.*

7           (4) *In the case of metering devices, sensors, con-*  
8           *trol devices, and other devices integrated with and at-*  
9           *tached to an electric utility system or retail dis-*  
10          *tributor or marketer of electricity that are capable of*  
11          *engaging in Smart Grid functions, the documented*  
12          *expenditures incurred by the electric utility, dis-*  
13          *tributor, or marketer and its customers to purchase*  
14          *and install such devices.*

15          (5) *In the case of software that enables devices or*  
16          *computers to engage in Smart Grid functions, the*  
17          *documented purchase costs of the software.*

18          (6) *In the case of entities that operate or coordi-*  
19          *nate operations of regional electric grids, the docu-*  
20          *mented expenditures for purchasing and installing*  
21          *such equipment that allows Smart Grid functions to*  
22          *operate and be combined or coordinated among mul-*  
23          *tiple electric utilities and between that region and*  
24          *other regions.*



1           (7) *In the case of persons or entities other than*  
2           *electric utilities owning and operating a distributed*  
3           *electricity generator, the documented expenditures of*  
4           *enabling that generator to be monitored, controlled, or*  
5           *otherwise integrated into grid operations and elec-*  
6           *tricity flows on the grid utilizing Smart Grid func-*  
7           *tions.*

8           (8) *In the case of electric or hybrid-electric vehi-*  
9           *cles, the documented expenses for devices that allow*  
10          *the vehicle to engage in Smart Grid functions (but*  
11          *not the costs of electricity storage for the vehicle).*

12          (9) *The documented expenditures related to pur-*  
13          *chasing and implementing Smart Grid functions in*  
14          *such other cases as the Secretary shall identify. In*  
15          *making such grants, the Secretary shall seek to re-*  
16          *ward innovation and early adaptation, even if success*  
17          *is not complete, rather than deployment of proven*  
18          *and commercially viable technologies.*

19          (c) *INVESTMENTS NOT INCLUDED.—Qualifying Smart*  
20          *Grid investments do not include any of the following:*

21               (1) *Investments or expenditures for Smart Grid*  
22               *technologies, devices, or equipment that are eligible for*  
23               *specific tax credits or deductions under the Internal*  
24               *Revenue Code, as amended.*

1           (2) *Expenditures for electricity generation,*  
2           *transmission, or distribution infrastructure or equip-*  
3           *ment not directly related to enabling Smart Grid*  
4           *functions.*

5           (3) *After the final date for State consideration of*  
6           *the Smart Grid Information Standard under section*  
7           *1307 (paragraph (17) of section 111(d) of the Public*  
8           *Utility Regulatory Policies Act of 1978), an invest-*  
9           *ment that is not in compliance with such standard.*

10          (4) *After the development and publication by the*  
11          *Institute of protocols and model standards for inter-*  
12          *operability of smart grid devices and technologies, an*  
13          *investment that fails to incorporate any of such pro-*  
14          *ocols or model standards.*

15          (5) *Expenditures for physical interconnection of*  
16          *generators or other devices to the grid except those*  
17          *that are directly related to enabling Smart Grid func-*  
18          *tions.*

19          (6) *Expenditures for ongoing salaries, benefits,*  
20          *or personnel costs not incurred in the initial installa-*  
21          *tion, training, or start up of smart grid functions.*

22          (7) *Expenditures for travel, lodging, meals or*  
23          *other personal costs.*

1           (8) *Ongoing or routine operation, billing, cus-*  
2           *tomers relations, security, and maintenance expendi-*  
3           *tures.*

4           (9) *Such other expenditures that the Secretary*  
5           *determines not to be Qualifying Smart Grid Invest-*  
6           *ments by reason of the lack of the ability to perform*  
7           *Smart Grid functions or lack of direct relationship to*  
8           *Smart Grid functions.*

9           (d) *SMART GRID FUNCTIONS.—The term “smart grid*  
10          *functions” means any of the following:*

11           (1) *The ability to develop, store, send and receive*  
12           *digital information concerning electricity use, costs,*  
13           *prices, time of use, nature of use, storage, or other in-*  
14           *formation relevant to device, grid, or utility oper-*  
15           *ations, to or from or by means of the electric utility*  
16           *system, through one or a combination of devices and*  
17           *technologies.*

18           (2) *The ability to develop, store, send and receive*  
19           *digital information concerning electricity use, costs,*  
20           *prices, time of use, nature of use, storage, or other in-*  
21           *formation relevant to device, grid, or utility oper-*  
22           *ations to or from a computer or other control device.*

23           (3) *The ability to measure or monitor electricity*  
24           *use as a function of time of day, power quality char-*  
25           *acteristics such as voltage level, current, cycles per*

1        *second, or source or type of generation and to store,*  
2        *synthesize or report that information by digital*  
3        *means.*

4            *(4) The ability to sense and localize disruptions*  
5        *or changes in power flows on the grid and commu-*  
6        *nicate such information instantaneously and auto-*  
7        *matically for purposes of enabling automatic protec-*  
8        *tive responses to sustain reliability and security of*  
9        *grid operations.*

10           *(5) The ability to detect, prevent, communicate*  
11        *with regard to, respond to, or recover from system se-*  
12        *curity threats, including cyber-security threats and*  
13        *terrorism, using digital information, media, and de-*  
14        *vices.*

15           *(6) The ability of any appliance or machine to*  
16        *respond to such signals, measurements, or commu-*  
17        *nications automatically or in a manner programmed*  
18        *by its owner or operator without independent human*  
19        *intervention.*

20           *(7) The ability to use digital information to op-*  
21        *erate functionalities on the electric utility grid that*  
22        *were previously electro-mechanical or manual.*

23           *(8) The ability to use digital controls to manage*  
24        *and modify electricity demand, enable congestion*

1        *management, assist in voltage control, provide oper-*  
2        *ating reserves, and provide frequency regulation.*

3            *(9) Such other functions as the Secretary may*  
4        *identify as being necessary or useful to the operation*  
5        *of a Smart Grid.*

6        *(e) The Secretary shall—*

7            *(1) establish and publish in the Federal Register,*  
8        *within one year after the enactment of this Act proce-*  
9        *dures by which applicants who have made qualifying*  
10       *Smart Grid investments can seek and obtain reim-*  
11       *bursement of one-fifth of their documented expendi-*  
12       *tures;*

13           *(2) establish procedures to ensure that there is no*  
14       *duplication or multiple reimbursement for the same*  
15       *investment or costs, that the reimbursement goes to*  
16       *the party making the actual expenditures for Quali-*  
17       *fying Smart Grid Investments, and that the grants*  
18       *made have significant effect in encouraging and fa-*  
19       *cilitating the development of a smart grid;*

20           *(3) maintain public records of reimbursements*  
21       *made, recipients, and qualifying Smart Grid invest-*  
22       *ments which have received reimbursements;*

23           *(4) establish procedures to provide, in cases*  
24       *deemed by the Secretary to be warranted, advance*  
25       *payment of moneys up to the full amount of the pro-*

1       jected eventual reimbursement, to creditworthy appli-  
 2       cants whose ability to make Qualifying Smart Grid  
 3       Investments may be hindered by lack of initial cap-  
 4       ital, in lieu of any later reimbursement for which  
 5       that applicant qualifies, and subject to full return of  
 6       the advance payment in the event that the Qualifying  
 7       Smart Grid investment is not made; and

8               (5) have and exercise the discretion to deny  
 9       grants for investments that do not qualify in the rea-  
 10      sonable judgment of the Secretary.

11      (f) *AUTHORIZATION OF APPROPRIATIONS.*—There are  
 12      authorized to be appropriated to the Secretary such sums  
 13      as are necessary for the administration of this section and  
 14      the grants to be made pursuant to this section for fiscal  
 15      years 2008 through 2012.

16      **SEC. 1307. STATE CONSIDERATION OF SMART GRID.**

17      (a) Section 111(d) of the Public Utility Regulatory  
 18      Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by  
 19      adding at the end the following:

20               “(16) *CONSIDERATION OF SMART GRID INVEST-*  
 21      *MENTS.*—

22               “(A) *IN GENERAL.*—Each State shall con-  
 23      sider requiring that, prior to undertaking invest-  
 24      ments in nonadvanced grid technologies, an elec-  
 25      tric utility of the State demonstrate to the State

1       *that the electric utility considered an investment*  
2       *in a qualified smart grid system based on appro-*  
3       *priate factors, including—*

4               “(i) *total costs;*

5               “(ii) *cost-effectiveness;*

6               “(iii) *improved reliability;*

7               “(iv) *security;*

8               “(v) *system performance; and*

9               “(vi) *societal benefit.*

10              “(B) *RATE RECOVERY.—Each State shall*  
11       *consider authorizing each electric utility of the*  
12       *State to recover from ratepayers any capital, op-*  
13       *erating expenditure, or other costs of the electric*  
14       *utility relating to the deployment of a qualified*  
15       *smart grid system, including a reasonable rate of*  
16       *return on the capital expenditures of the electric*  
17       *utility for the deployment of the qualified smart*  
18       *grid system.*

19              “(C) *OBSOLETE EQUIPMENT.—Each State*  
20       *shall consider authorizing any electric utility or*  
21       *other party of the State to deploy a qualified*  
22       *smart grid system to recover in a timely manner*  
23       *the remaining book-value costs of any equipment*  
24       *rendered obsolete by the deployment of the quali-*

1        *fied smart grid system, based on the remaining*  
 2        *depreciable life of the obsolete equipment.*

3        “(17) *SMART GRID INFORMATION.*—

4                “(A) *STANDARD.*—*All electricity purchasers*  
 5        *shall be provided direct access, in written or elec-*  
 6        *tronic machine-readable form as appropriate, to*  
 7        *information from their electricity provider as*  
 8        *provided in subparagraph (B).*

9                “(B) *INFORMATION.*—*Information provided*  
 10        *under this section, to the extent practicable, shall*  
 11        *include:*

12                “(i) *PRICES.*—*Purchasers and other*  
 13        *interested persons shall be provided with in-*  
 14        *formation on—*

15                “(I) *time-based electricity prices*  
 16        *in the wholesale electricity market; and*

17                “(II) *time-based electricity retail*  
 18        *prices or rates that are available to the*  
 19        *purchasers.*

20                “(ii) *USAGE.*—*Purchasers shall be pro-*  
 21        *vided with the number of electricity units,*  
 22        *expressed in kwh, purchased by them.*

23                “(iii) *INTERVALS AND PROJECTIONS.*—  
 24        *Updates of information on prices and usage*  
 25        *shall be offered on not less than a daily*



basis, shall include hourly price and use information, where available, and shall include a day-ahead projection of such price information to the extent available.

“(iv) *SOURCES.*—Purchasers and other interested persons shall be provided annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

“(C) *ACCESS.*—Purchasers shall be able to access their own information at any time through the internet and on other means of communication elected by that utility for Smart Grid applications. Other interested persons shall be able to access information not specific to any purchaser through the Internet. Information specific to any purchaser shall be provided solely to that purchaser.”.

(b) *COMPLIANCE.*—

(1) *TIME LIMITATIONS.*—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16

1       U.S.C. 2622(b)) is amended by adding the following  
 2       at the end thereof:

3               “(6)(A) Not later than 1 year after the enact-  
 4       ment of this paragraph, each State regulatory author-  
 5       ity (with respect to each electric utility for which it  
 6       has ratemaking authority) and each nonregulated  
 7       utility shall commence the consideration referred to in  
 8       section 111, or set a hearing date for consideration,  
 9       with respect to the standards established by para-  
 10      graphs (17) through (18) of section 111(d).

11              “(B) Not later than 2 years after the date of the  
 12      enactment of the this paragraph, each State regu-  
 13      latory authority (with respect to each electric utility  
 14      for which it has ratemaking authority), and each  
 15      nonregulated electric utility, shall complete the con-  
 16      sideration, and shall make the determination, referred  
 17      to in section 111 with respect to each standard estab-  
 18      lished by paragraphs (17) through (18) of section  
 19      111(d).”.

20              (2) *FAILURE TO COMPLY.*—Section 112(c) of the  
 21      Public Utility Regulatory Policies Act of 1978 (16  
 22      U.S.C. 2622(c)) is amended by adding the following  
 23      at the end:

24              “*In the case of the standards established by paragraphs*  
 25      *(16) through (19) of section 111(d), the reference contained*

1 *in this subsection to the date of enactment of this Act shall*  
 2 *be deemed to be a reference to the date of enactment of such*  
 3 *paragraphs.”.*

4 (3) *PRIOR STATE ACTIONS.*—Section 112(d) of  
 5 *the Public Utility Regulatory Policies Act of 1978 (16*  
 6 *U.S.C. 2622(d)) is amended by inserting “and para-*  
 7 *graphs (17) through (18)” before “of section 111(d)”.*

8 **SEC. 1308. STUDY OF THE EFFECT OF PRIVATE WIRE LAWS**  
 9 **ON THE DEVELOPMENT OF COMBINED HEAT**  
 10 **AND POWER FACILITIES.**

11 (a) *STUDY.*—

12 (1) *IN GENERAL.*—The Secretary, in consultation  
 13 *with the States and other appropriate entities, shall*  
 14 *conduct a study of the laws (including regulations)*  
 15 *affecting the siting of privately owned electric dis-*  
 16 *tribution wires on and across public rights-of-way.*

17 (2) *REQUIREMENTS.*—The study under para-  
 18 *graph (1) shall include—*

19 (A) *an evaluation of—*

20 (i) *the purposes of the laws; and*

21 (ii) *the effect the laws have on the de-*  
 22 *velopment of combined heat and power fa-*  
 23 *cilities;*

24 (B) *a determination of whether a change in*  
 25 *the laws would have any operating, reliability,*

1           *cost, or other impacts on electric utilities and the*  
 2           *customers of the electric utilities; and*

3           *(C) an assessment of—*

4                   *(i) whether privately owned electric*  
 5                   *distribution wires would result in duplica-*  
 6                   *tive facilities; and*

7                   *(ii) whether duplicative facilities are*  
 8                   *necessary or desirable.*

9           *(b) REPORT.—Not later than 1 year after the date of*  
 10          *enactment of this Act, the Secretary shall submit to Con-*  
 11          *gress a report that describes the results of the study con-*  
 12          *ducted under subsection (a).*

13          **SEC. 1309. DOE STUDY OF SECURITY ATTRIBUTES OF**  
 14                   **SMART GRID SYSTEMS.**

15          *(a) DOE STUDY.—The Secretary shall, within 18*  
 16          *months after the date of enactment of this Act, submit a*  
 17          *report to Congress that provides a quantitative assessment*  
 18          *and determination of the existing and potential impacts of*  
 19          *the deployment of Smart Grid systems on improving the*  
 20          *security of the Nation’s electricity infrastructure and oper-*  
 21          *ating capability. The report shall include but not be limited*  
 22          *to specific recommendations on each of the following:*

23                   *(1) How smart grid systems can help in making*  
 24                   *the Nation’s electricity system less vulnerable to dis-*  
 25                   *ruptions due to intentional acts against the system.*

1           (2) *How smart grid systems can help in restoring the integrity of the Nation’s electricity system subsequent to disruptions.*

4           (3) *How smart grid systems can facilitate nationwide, interoperable emergency communications and control of the Nation’s electricity system during times of localized, regional, or nationwide emergency.*

8           (4) *What risks must be taken into account that smart grid systems may, if not carefully created and managed, create vulnerability to security threats of any sort, and how such risks may be mitigated.*

12          (b) *CONSULTATION.—The Secretary shall consult with other Federal agencies in the development of the report under this section, including but not limited to the Secretary of Homeland Security, the Federal Energy Regulatory Commission, and the Electric Reliability Organization certified by the Commission under section 215(c) of the Federal Power Act (16 U.S.C. 824o) as added by section 1211 of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 941).*

## 21           **TITLE XIV—POOL AND SPA** 22                                   **SAFETY**

### 23   **SEC. 1401. SHORT TITLE.**

24           *This title may be cited as the “Virginia Graeme Baker*  
25 *Pool and Spa Safety Act”.*

1 **SEC. 1402. FINDINGS.**

2 *Congress finds the following:*

3 *(1) Of injury-related deaths, drowning is the sec-*  
4 *ond leading cause of death in children aged 1 to 14*  
5 *in the United States.*

6 *(2) In 2004, 761 children aged 14 and under*  
7 *died as a result of unintentional drowning.*

8 *(3) Adult supervision at all aquatic venues is a*  
9 *critical safety factor in preventing children from*  
10 *drowning.*

11 *(4) Research studies show that the installation*  
12 *and proper use of barriers or fencing, as well as addi-*  
13 *tional layers of protection, could substantially reduce*  
14 *the number of childhood residential swimming pool*  
15 *drownings and near drownings.*

16 **SEC. 1403. DEFINITIONS.**

17 *In this title:*

18 *(1) ASME/ANSI.—The term “ASME/ANSI” as*  
19 *applied to a safety standard means such a standard*  
20 *that is accredited by the American National Stand-*  
21 *ards Institute and published by the American Society*  
22 *of Mechanical Engineers.*

23 *(2) BARRIER.—The term “barrier” includes a*  
24 *natural or constructed topographical feature that pre-*  
25 *vents unpermitted access by children to a swimming*  
26 *pool, and, with respect to a hot tub, a lockable cover.*

1           (3) *COMMISSION.*—*The term “Commission”*  
 2           *means the Consumer Product Safety Commission.*

3           (4) *MAIN DRAIN.*—*The term “main drain”*  
 4           *means a submerged suction outlet typically located at*  
 5           *the bottom of a pool or spa to conduct water to a re-*  
 6           *circulating pump.*

7           (5) *SAFETY VACUUM RELEASE SYSTEM.*—*The*  
 8           *term “safety vacuum release system” means a vacuum*  
 9           *release system capable of providing vacuum release at*  
 10          *a suction outlet caused by a high vacuum occurrence*  
 11          *due to a suction outlet flow blockage.*

12          (6) *SWIMMING POOL; SPA.*—*The term “swim-*  
 13          *ming pool” or “spa” means any outdoor or indoor*  
 14          *structure intended for swimming or recreational bath-*  
 15          *ing, including in-ground and above-ground struc-*  
 16          *tures, and includes hot tubs, spas, portable spas, and*  
 17          *non-portable wading pools.*

18          (7) *UNBLOCKABLE DRAIN.*—*The term*  
 19          *“unblockable drain” means a drain of any size and*  
 20          *shape that a human body cannot sufficiently block to*  
 21          *create a suction entrapment hazard.*

22 **SEC. 1404. FEDERAL SWIMMING POOL AND SPA DRAIN**  
 23 **COVER STANDARD.**

24          (a) *CONSUMER PRODUCT SAFETY RULE.*—*The re-*  
 25          *quirements described in subsection (b) shall be treated as*

1 *a consumer product safety rule issued by the Consumer*  
 2 *Product Safety Commission under the Consumer Product*  
 3 *Safety Act (15 U.S.C. 2051 et seq.).*

4       **(b) DRAIN COVER STANDARD.**—*Effective 1 year after*  
 5 *the date of enactment of this title, each swimming pool or*  
 6 *spa drain cover manufactured, distributed, or entered into*  
 7 *commerce in the United States shall conform to the entrap-*  
 8 *ment protection standards of the ASME/ANSI A112.19.8*  
 9 *performance standard, or any successor standard regulating*  
 10 *such swimming pool or drain cover.*

11       **(c) PUBLIC POOLS.**—

12               **(1) REQUIRED EQUIPMENT.**—

13                       **(A) IN GENERAL.**—*Beginning 1 year after*  
 14 *the date of enactment of this title—*

15                               *(i) each public pool and spa in the*  
 16 *United States shall be equipped with anti-*  
 17 *entrapment devices or systems that comply*  
 18 *with the ASME/ANSI A112.19.8 perform-*  
 19 *ance standard, or any successor standard;*  
 20 *and*

21                               *(ii) each public pool and spa in the*  
 22 *United States with a single main drain*  
 23 *other than an unblockable drain shall be*  
 24 *equipped, at a minimum, with 1 or more of*  
 25 *the following devices or systems designed to*



1            *prevent entrapment by pool or spa drains*  
 2            *that meets the requirements of subpara-*  
 3            *graph (B):*

4                    (I) *SAFETY VACUUM RELEASE*  
 5                    *SYSTEM.—A safety vacuum release sys-*  
 6                    *tem which ceases operation of the*  
 7                    *pump, reverses the circulation flow, or*  
 8                    *otherwise provides a vacuum release at*  
 9                    *a suction outlet when a blockage is de-*  
 10                   *tected, that has been tested by an inde-*  
 11                   *pendent third party and found to con-*  
 12                   *form to ASME/ANSI standard*  
 13                   *A112.19.17 or ASTM standard F2387.*

14                   (II) *SUCTION-LIMITING VENT SYS-*  
 15                   *TEM.—A suction-limiting vent system*  
 16                   *with a tamper-resistant atmospheric*  
 17                   *opening.*

18                   (III) *GRAVITY DRAINAGE SYS-*  
 19                   *TEM.—A gravity drainage system that*  
 20                   *utilizes a collector tank.*

21                   (IV) *AUTOMATIC PUMP SHUT-OFF*  
 22                   *SYSTEM.—An automatic pump shut-off*  
 23                   *system.*

24                   (V) *DRAIN DISABLEMENT.—A de-*  
 25                   *vice or system that disables the drain.*

1                   (VI) *OTHER SYSTEMS.*—Any other  
 2                   system determined by the Commission  
 3                   to be equally effective as, or better  
 4                   than, the systems described in sub-  
 5                   clauses (I) through (V) of this clause at  
 6                   preventing or eliminating the risk of  
 7                   injury or death associated with pool  
 8                   drainage systems.

9                   (B) *APPLICABLE STANDARDS.*—Any device  
 10                  or system described in subparagraph (A)(ii)  
 11                  shall meet the requirements of any ASME/ANSI  
 12                  or ASTM performance standard if there is such  
 13                  a standard for such a device or system, or any  
 14                  applicable consumer product safety standard.

15               (2) *PUBLIC POOL AND SPA DEFINED.*—In this  
 16               subsection, the term “public pool and spa” means a  
 17               swimming pool or spa that is—

18                   (A) open to the public generally, whether for  
 19                   a fee or free of charge;

20                   (B) open exclusively to—

21                       (i) members of an organization and  
 22                       their guests;

23                       (ii) residents of a multi-unit apart-  
 24                       ment building, apartment complex, residen-  
 25                       tial real estate development, or other multi-

1           *family residential area (other than a mu-*  
 2           *nicipality, township, or other local govern-*  
 3           *ment jurisdiction); or*

4           *(iii) patrons of a hotel or other public*  
 5           *accommodations facility; or*

6           *(C) operated by the Federal Government (or*  
 7           *by a concessionaire on behalf of the Federal Gov-*  
 8           *ernment) for the benefit of members of the Armed*  
 9           *Forces and their dependents or employees of any*  
 10          *department or agency and their dependents.*

11          (3) *ENFORCEMENT.*—*Violation of paragraph (1)*  
 12          *shall be considered to be a violation of section*  
 13          *19(a)(1) of the Consumer Product Safety Act (15*  
 14          *U.S.C. 2068(a)(1)) and may also be enforced under*  
 15          *section 17 of that Act (15 U.S.C. 2066).*

16 **SEC. 1405. STATE SWIMMING POOL SAFETY GRANT PRO-**  
 17 **GRAM.**

18          (a) *IN GENERAL.*—*Subject to the availability of appro-*  
 19          *priations authorized by subsection (e), the Commission shall*  
 20          *establish a grant program to provide assistance to eligible*  
 21          *States.*

22          (b) *ELIGIBILITY.*—*To be eligible for a grant under the*  
 23          *program, a State shall—*

24                  (1) *demonstrate to the satisfaction of the Com-*  
 25                  *mission that it has a State statute, or that, after the*

1        *date of enactment of this title, it has enacted a stat-*  
 2        *ute, or amended an existing statute, and provides for*  
 3        *the enforcement of, a law that—*

4                (A) *except as provided in section*  
 5                *1406(a)(1)(A)(i), applies to all swimming pools*  
 6                *in the State; and*

7                (B) *meets the minimum State law require-*  
 8                *ments of section 1406; and*

9                (2) *submit an application to the Commission at*  
 10        *such time, in such form, and containing such addi-*  
 11        *tional information as the Commission may require.*

12        (c) *AMOUNT OF GRANT.—The Commission shall deter-*  
 13        *mine the amount of a grant awarded under this title, and*  
 14        *shall consider—*

15                (1) *the population and relative enforcement*  
 16                *needs of each qualifying State; and*

17                (2) *allocation of grant funds in a manner de-*  
 18                *signed to provide the maximum benefit from the pro-*  
 19                *gram in terms of protecting children from drowning*  
 20                *or entrapment, and, in making that allocation, shall*  
 21                *give priority to States that have not received a grant*  
 22                *under this title in a preceding fiscal year.*

23        (d) *USE OF GRANT FUNDS.—A State receiving a grant*  
 24        *under this section shall use—*

1           (1) *at least 50 percent of amounts made avail-*  
2           *able to hire and train enforcement personnel for im-*  
3           *plementation and enforcement of standards under the*  
4           *State swimming pool and spa safety law; and*

5           (2) *the remainder—*

6                 (A) *to educate pool construction and instal-*  
7                 *lation companies and pool service companies*  
8                 *about the standards;*

9                 (B) *to educate pool owners, pool operators,*  
10                *and other members of the public about the stand-*  
11                *ards under the swimming pool and spa safety*  
12                *law and about the prevention of drowning or en-*  
13                *trapment of children using swimming pools and*  
14                *spas; and*

15                (C) *to defray administrative costs associ-*  
16                *ated with such training and education programs.*

17       (e) *AUTHORIZATION OF APPROPRIATIONS.—There are*  
18       *authorized to be appropriated to the Commission for each*  
19       *of fiscal years 2009 and 2010 \$2,000,000 to carry out this*  
20       *section, such sums to remain available until expended. Any*  
21       *amounts appropriated pursuant to this subsection that re-*  
22       *main unexpended and unobligated at the end of fiscal year*  
23       *2010 shall be retained by the Commission and credited to*  
24       *the appropriations account that funds enforcement of the*  
25       *Consumer Product Safety Act.*

1 **SEC. 1406. MINIMUM STATE LAW REQUIREMENTS.**

2 (a) *IN GENERAL.*—

3 (1) *SAFETY STANDARDS.*—A State meets the  
4 minimum State law requirements of this section if—

5 (A) the State requires by statute—

6 (i) the enclosure of all outdoor residen-  
7 tial pools and spas by barriers to entry that  
8 will effectively prevent small children from  
9 gaining unsupervised and unfettered access  
10 to the pool or spa;

11 (ii) that all pools and spas be equipped  
12 with devices and systems designed to pre-  
13 vent entrapment by pool or spa drains;

14 (iii) that pools and spas built more  
15 than 1 year after the date of the enactment  
16 of such statute have—

17 (I) more than 1 drain;

18 (II) 1 or more unblockable drains;

19 or

20 (III) no main drain;

21 (iv) every swimming pool and spa that  
22 has a main drain, other than an  
23 unblockable drain, be equipped with a drain  
24 cover that meets the consumer product safe-  
25 ty standard established by section 1404; and

1                   (v) that periodic notification is pro-  
 2                   vided to owners of residential swimming  
 3                   pools or spas about compliance with the en-  
 4                   trapment protection standards of the  
 5                   ASME/ANSI A112.19.8 performance stand-  
 6                   ard, or any successor standard; and

7                   (B) the State meets such additional State  
 8                   law requirements for pools and spas as the Com-  
 9                   mission may establish after public notice and a  
 10                  30-day public comment period.

11               (2) NO LIABILITY INFERENCE ASSOCIATED WITH  
 12               STATE NOTIFICATION REQUIREMENT.—*The minimum*  
 13               *State law notification requirement under paragraph*  
 14               *(1)(A)(v) shall not be construed to imply any liability*  
 15               *on the part of a State related to that requirement.*

16               (3) USE OF MINIMUM STATE LAW REQUIRE-  
 17               MENTS.—*The Commission—*

18                   (A) shall use the minimum State law re-  
 19                   quirements under paragraph (1) solely for the  
 20                   purpose of determining the eligibility of a State  
 21                   for a grant under section 1405 of this Act; and

22                   (B) may not enforce any requirement under  
 23                   paragraph (1) except for the purpose of deter-  
 24                   mining the eligibility of a State for a grant  
 25                   under section 1405 of this Act.

1           (4) *REQUIREMENTS TO REFLECT NATIONAL PER-*  
 2           *FORMANCE STANDARDS AND COMMISSION GUIDE-*  
 3           *LINES.—In establishing minimum State law require-*  
 4           *ments under paragraph (1), the Commission shall—*

5                   (A) *consider current or revised national*  
 6                   *performance standards on pool and spa barrier*  
 7                   *protection and entrapment prevention; and*

8                   (B) *ensure that any such requirements are*  
 9                   *consistent with the guidelines contained in the*  
 10                  *Commission’s publication 362, entitled “Safety*  
 11                  *Barrier Guidelines for Home Pools”, the Com-*  
 12                  *mission’s publication entitled “Guidelines for*  
 13                  *Entrapment Hazards: Making Pools and Spas*  
 14                  *Safer”, and any other pool safety guidelines es-*  
 15                  *tablished by the Commission.*

16          (b) *STANDARDS.—Nothing in this section prevents the*  
 17          *Commission from promulgating standards regulating pool*  
 18          *and spa safety or from relying on an applicable national*  
 19          *performance standard.*

20          (c) *BASIC ACCESS-RELATED SAFETY DEVICES AND*  
 21          *EQUIPMENT REQUIREMENTS TO BE CONSIDERED.—In es-*  
 22          *tablishing minimum State law requirements for swimming*  
 23          *pools and spas under subsection (a)(1), the Commission*  
 24          *shall consider the following requirements:*

25                  (1) *COVERS.—A safety pool cover.*



1           (2) *GATES*.—*A gate with direct access to the*  
 2           *swimming pool or spa that is equipped with a self-*  
 3           *closing, self-latching device.*

4           (3) *DOORS*.—*Any door with direct access to the*  
 5           *swimming pool or spa that is equipped with an audi-*  
 6           *ble alert device or alarm which sounds when the door*  
 7           *is opened.*

8           (4) *POOL ALARM*.—*A device designed to provide*  
 9           *rapid detection of an entry into the water of a swim-*  
 10          *ming pool or spa.*

11          (d) *ENTRAPMENT, ENTANGLEMENT, AND EVISCERA-*  
 12          *TION PREVENTION STANDARDS TO BE REQUIRED.*—

13           (1) *IN GENERAL*.—*In establishing additional*  
 14          *minimum State law requirements for swimming pools*  
 15          *and spas under subsection (a)(1), the Commission*  
 16          *shall require, at a minimum, 1 or more of the fol-*  
 17          *lowing (except for pools constructed without a single*  
 18          *main drain):*

19           (A) *SAFETY VACUUM RELEASE SYSTEM*.—*A*  
 20          *safety vacuum release system which ceases oper-*  
 21          *ation of the pump, reverses the circulation flow,*  
 22          *or otherwise provides a vacuum release at a suc-*  
 23          *tion outlet when a blockage is detected, that has*  
 24          *been tested by an independent third party and*  
 25          *found to conform to ASME/ANSI standard*

1       *A112.19.17 or ASTM standard F2387, or any*  
 2       *successor standard.*

3               *(B) SUCTION-LIMITING VENT SYSTEM.—A*  
 4       *suction-limiting vent system with a tamper-re-*  
 5       *sistant atmospheric opening.*

6               *(C) GRAVITY DRAINAGE SYSTEM.—A grav-*  
 7       *ity drainage system that utilizes a collector tank.*

8               *(D) AUTOMATIC PUMP SHUT-OFF SYSTEM.—*  
 9       *An automatic pump shut-off system.*

10              *(E) DRAIN DISABLEMENT.—A device or sys-*  
 11       *tem that disables the drain.*

12              *(F) OTHER SYSTEMS.—Any other system*  
 13       *determined by the Commission to be equally ef-*  
 14       *fective as, or better than, the systems described in*  
 15       *subparagraphs (A) through (E) of this para-*  
 16       *graph at preventing or eliminating the risk of*  
 17       *injury or death associated with pool drainage*  
 18       *systems.*

19              *(2) APPLICABLE STANDARDS.—Any device or*  
 20       *system described in subparagraphs (B) through (E) of*  
 21       *paragraph (1) shall meet the requirements of any*  
 22       *ASME/ANSI or ASTM performance standard if there*  
 23       *is such a standard for such a device or system, or any*  
 24       *applicable consumer product safety standard.*

1 **SEC. 1407. EDUCATION PROGRAM.**

2       (a) *IN GENERAL.*—*The Commission shall establish and*  
3 *carry out an education program to inform the public of*  
4 *methods to prevent drowning and entrapment in swimming*  
5 *pools and spas. In carrying out the program, the Commis-*  
6 *sion shall develop—*

7               (1) *educational materials designed for pool man-*  
8 *ufacturers, pool service companies, and pool supply*  
9 *retail outlets;*

10              (2) *educational materials designed for pool own-*  
11 *ers and operators; and*

12              (3) *a national media campaign to promote*  
13 *awareness of pool and spa safety.*

14       (b) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*  
15 *authorized to be appropriated to the Commission for each*  
16 *of the fiscal years 2008 through 2012 \$5,000,000 to carry*  
17 *out the education program authorized by subsection (a).*

18 **SEC. 1408. CPSC REPORT.**

19       *Not later than 1 year after the last day of each fiscal*  
20 *year for which grants are made under section 1405, the*  
21 *Commission shall submit to Congress a report evaluating*  
22 *the implementation of the grant program authorized by that*  
23 *section.*

# **TITLE XV—REVENUE PROVISIONS**

## **SEC. 1500. AMENDMENT OF 1986 CODE.**

*Except as otherwise expressly provided, whenever in this title an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986.*

## **SEC. 1501. EXTENSION OF ADDITIONAL 0.2 PERCENT FUTA SURTAX.**

*(a) IN GENERAL.—Section 3301 (relating to rate of tax) is amended—*

*(1) by striking “2007” in paragraph (1) and inserting “2008”, and*

*(2) by striking “2008” in paragraph (2) and inserting “2009”.*

*(b) EFFECTIVE DATE.—The amendments made by this section shall apply to wages paid after December 31, 2007.*

## **SEC. 1502. 7-YEAR AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENDITURES FOR CERTAIN MAJOR INTEGRATED OIL COMPANIES.**

*(a) IN GENERAL.—Subparagraph (A) of section 167(h)(5) (relating to special rule for major integrated oil companies) is amended by striking “5-year” and inserting “7-year”.*

1       (b) *EFFECTIVE DATE.*—*The amendment made by this*  
2 *section shall apply to amounts paid or incurred after the*  
3 *date of the enactment of this Act.*

4       ***TITLE XVI—EFFECTIVE DATE***

5       ***SEC. 1601. EFFECTIVE DATE.***

6       *This Act and the amendments made by this Act take*  
7 *effect on the date that is 1 day after the date of enactment*  
8 *of this Act.*

Attest:

*Secretary.*

110TH CONGRESS  
1ST SESSION

# H. R. 6

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SENATE AMENDMENT TO  
HOUSE AMENDMENTS TO  
SENATE AMENDMENTS